

THE MACDONALD JOURNAL

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Cover Story

At Convocation on June 4, 1985, after being designated an Emeritus Professor, Dr. Lewis Ewan Lloyd received a standing ovation from staff and students — from all those in attendance. Some of his recollections of his years at Macdonald are in this issue. Dean Buckland, in presenting L.E. Lloyd, mentioned that he had "served the university with distinction, particularly in the areas of teaching, research, and administration." His contributions also extended beyond the university to include the Nutrition Society of Canada, the Agricultural Institute of Canada, the International Union of Nutritional Sciences, the Canadian Dietetics Association, and the Canadian Forces Medical Council. A remarkable career and it isn't over yet! We wish him well.

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A Long and Close Association

(Dr. Lloyd retired from the position of Dean and Vice Principal, Macdonald College, on June 1, 1985. The editor of the Macdonald Journal interviewed Dr. Lloyd a few weeks before his retirement. The questions have been abbreviated for reasons of space.)

You are stepping down, retiring early, the first question has to be why?

Low Lloyd Having been a dean for 10 years at Manitoba and another eight years here, the time comes when you feel that you have done the same kind of thing long enough. Some of the enthusiasm and some of the energy has gone, and it just seems to be a good time to turn the position over to somebody else.

You returned to Macdonald after being at the University of Manitoba. Tell us something of your pre-Manitoba days here at Macdonald.

Low Lloyd I came here as a student in the fall of 1941 and did two years. Then a group of us from Macdonald decided to join the army: Jim Woods, Hugh Proverbs, Gordie Curtin, Don Robertson, Tricky Ness, Jock MacLaren, and myself. We went through basic training, to Petawawa, and finally overseas together. Five of us came back on the same boat in May of 1946 and, of the seven, six came back here. Tricky Ness was the only one that went into McGill and did a degree in Commerce.

Jock MacLaren became my roommate in third and fourth years, and Pauline and I see him every year. Gordie Curtin and Jim Woods are living in Ottawa, Tricky Ness is in Brighton, Ontario, Don Robertson is retired and living close by in Beaurepaire, and Hugh Proverbs is now retired in Barbados.

I eventually graduated in 1948, but it was during my fourth year in the Animal Science option that I came under the influence of Dr. Earle Crampton, who was Chairman of the Department of Nutrition and also taught a course in nutrition which I

took. I got quite interested in the Nutrition field because of him, primarily, and towards the end of that final year he asked if I had ever considered doing graduate work. I told him that that was the furthest thing from my mind. Having spent time overseas I felt that life had got by me a little, that I had a lot of things to do, and I better get out and earn some money.

Dr. Crampton assured me that he could provide a research assistantship which, along with the DVA money, would support me so I decided to do a Master's degree. He also talked two of my friends, Jim Woods and Hugh Proverbs, into doing the same thing. Halfway through my Master's Dr. Crampton asked if I thought of doing a PhD and I again said "No". He told me that he could get me better assistance if I stayed on.

I was fully aware of the fact that you shouldn't do all your degrees at one university, but as I had such a healthy respect for Dr. Crampton and enjoyed working in the environment that he created in his department, I ended up doing a PhD with him. In 1952 the late Isabel Irwin and I were the

first to get a PhD in Nutrition from McGill. Prior to that people such as Florence Farmer who were in the program had to do a year or two elsewhere.

Both Dr. Crampton and I were aware that I was pretty inbred at that stage so he arranged for a post doctoral fellowship at Cornell University. To go back a couple years, however, Pauline Sharpe, who was in the Class of '48 and then went to work as a commercial dietitian at Eaton's in Montreal, and I were married in 1950, and our first home was in Diaper Dell. That was an interesting place to live because everybody was in the same boat with exactly the same type of accommodation. There was no one-upmanship with your neighbours other than perhaps the kind of curtains you put on your windows.

During my second year in Diaper Bell I became mayor which was not a very onerous job although some funny things came up, many of them having to do with interpersonal relationships of the inhabitants. I remember one instance very vividly where I had a complaint from one couple who lived



From the files: Discussing the "Problems of Carcass Fat" at the 42nd Annual Meeting of the Meat Packers Council of Canada, l to r, Dr. M.A. Macdonald, Professor L.E. Lloyd, and Dr. N. Nickolaiczuk of the Department of Animal Science.

next door to a man who was in the Faculty of Music and he practiced the saxophone all evening, right in the huts where the walls were paper thin. We eventually found a room for him in the Biology Building where he could practice at night.

My first neighbour was Lorne Gardner who was doing his PhD with Dr. DuPorte. He went to the Forest Research Lab at Sault Ste. Marie, and we have kept in touch with him and his wife Joyce over the years. When they left another entomologist, Ed LeRoux, came. Ed was subsequently on the staff here and now is Assistant Deputy Minister for Research in Agriculture Canada in Ottawa. Ed and I have a long-standing story about our bathroom situation. The two adjoining apartments shared a bathroom, and when you went in from your side you locked their door and so on. There was always problems when someone would forget to unlock the door and there would be banging on the walls at night with someone calling, "the door, the door!" and you knew exactly what you had forgotten to do. Ed and I have seen each other a great deal over the years, and I have always told him that he owes me two rolls of toilet paper, and he has always said that he is going to present me with a whole carton of toilet paper on some auspicious occasion. It hasn't happened yet.

Pauline and I spent two years in Diaper Dell while I was finishing my PhD. Our first son David arrived in 1952 while we were living there and later that summer we went to Cornell, where I had a very interesting year. It was rather pleasant working there because I was doing things I enjoyed. I had been a student for so long and suddenly I found there was no pressure to accomplish a degree of any kind.

One year is short but a job came up in the Department of Nutrition and I had a call from Dr. Crampton and back we came in the fall of 1953. In 1958 at the suggestion of Dr. Crampton we left for a post doctoral year at the Rowat Research Institute in Aberdeen. Nancy had been born when we were at Cornell in 1953 and Rob came along in 1956, so there were five of us that went over by boat and, again, it was an interesting year. Our youngest son, Jim, was born in 1963 while I was on staff here.

When I came back in 1959 George

Dion became Dean and he was reorganizing departments. The Department of Animal Science was born in 1960 — an amalgamation of the former departments of animal husbandry, poultry husbandry, animal pathology, and my original Department of Nutrition. I became the first Chairman of the Department of Animal Science, and that was an interesting challenge putting four departments together and trying to get a common philosophy for all those people who had worked independently up until then.

After seven years I was approached by the University of Manitoba to go out there and that was really shifting gears because I was to go into the area of Home Economics. The challenge was to build up a research environment and in 10 years we accomplished this. We went from five or six graduate students when I went there to about 40 when I left.

I was in Manitoba happily going about my business when I had a call from Dr. Bell, who was then Principal of McGill, asking if I would be interested in having my name stand as a candidate for the Dean of the Faculty of Agriculture and Vice Principal, Macdonald College. My first reaction was "No thanks. I am very happy where I am." A few weeks later I got another call asking if I would not reconsider at least to the extent of coming down and meeting with the selection committee, and I agreed to that.

I guess the lure of Macdonald, the Macdonald spirit, and the challenge got to me because I accepted the job.

What were some of your goals?

Lew Lloyd I saw an opportunity of starting out anew on a new campus and with a new building. I wanted a reaffirmation by the university that Macdonald was an integral part of its total operation. I also saw the possibility of building up things here at Macdonald. That happened to some degree in the early years but then the financial crunch hit us in 1980 and has continued to do so and a lot of the goals that I might have thought of have been stymied — or I like to think postponed because the new dean may have some of the same goals and some of the same building plans, and they will happen as soon as the financial restrictions are removed.

Would you do it over again?

Lew Lloyd When one accepts a job of this kind the first impression is of a tremendous challenge. In my case there were only six predecessors so there was a unique opportunity to provide leadership to the Macdonald group. It is a little staggering when you think of the responsibilities involved. The Dean's responsibilities are there on the one hand and on the other hand probably not too many people appreciate the additional responsibilities that are associated with being Vice Principal at the same time. They are quite different positions. Most deans don't have to worry about residences, the Centennial Centre, some 70 staff housing units, the Registrar's office, the campus grounds, the financial operation, as well as relations with our sister units on the campus: the Institute of Parasitology, the Brace Research Institute, and the Morgan Arboretum.

As Vice Principal you also have much closer ties with the downtown campus.

Lew Lloyd With that hat on I'm involved with an assortment of things that normally a dean would not be. Actually, it provides a dimension to the job which really is most interesting because you see the inner workings of the university — the good and the bad, the problems and the joys of university life — and you see it on a much closer basis than most other people.

When you ask would I do it again? No question. I would. It has just been too great an experience to say I wouldn't want it again.

... Today's Students

Lew Lloyd When I came back in 1977 we were into the CEGEP era, and my first impression was that students were much more serious people than they used to be, but this was really because we were not getting them right out of high school. They had gone through the first times of perhaps living away from home, and they had also come to the decision that they wanted to go to university as opposed to it being the thing to do or their parents thinking they should do it. I shouldn't suggest, however, that these people aren't capable of having a lot of fun. You are probably aware of my being

"kidnapped" at the end of term during my first year here. That was led by a group of students that I still think a lot of and they did it as a real prank. They had a lot of fun and it was fun for me as well.

A couple of years ago there were two young men reported to me because they had been trying to remove one of the easy chairs from the lobby of our residence, Laird Hall. I had them in my office and they were delightful young men who described the activities involved in that particular escapade. One of them had just got a tuxedo which he had inherited from his grandfather and decided to wear it that evening to a party. Somewhere during the course of the evening they decided that it would be a lark to remove the chair. The mental picture of this young fellow in a tuxedo trying to haul the chair out through the narrow doors of Laird Hall tickled my imagination so much that I had great difficulty in keeping a straight face and in telling those young men what a terrible thing they had done and that they couldn't go around stealing things. They both graduated last year, and I have seen them since and we have chuckled about it.

With my heavy schedule of trips to the downtown campus my one regret is that I haven't got to know the student body as well as I would have liked. I wish that I had had the opportunity to teach a course but with the decision when I came that I was going to become involved to a greater extent on the Montreal campus in order to bridge the gap that I perceived at that time, I knew that it would be completely unfair to a class of students to try to do both.

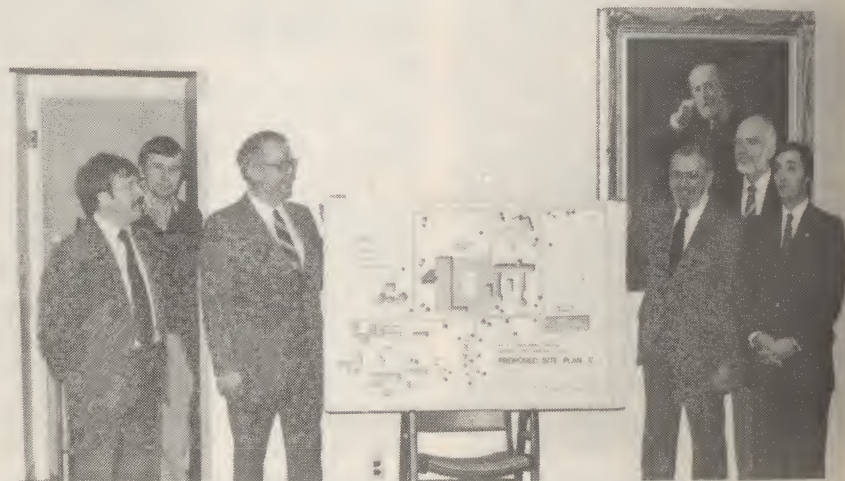
Maybe I have never completely gotten away from being a student and so still appreciate them and their thinking.

... Relations with the Downtown Campus

Lew Lloyd Having been at the University of Manitoba where the Faculty of Agriculture is situated right on the main campus, I was very impressed with the high regard in which the Faculty of Agriculture people were held among their colleagues there. This was something that I had never felt was true at McGill and, perhaps with a degree of maturity that I might have gained, I decided that this was



Opening ceremonies and greeting visitors offered Dean Lloyd a welcome change from meetings and other administrative duties. Recent photos include, above, opening the 25th annual woodsmen competition along with former coach Bob Watson.



Pierre H. Cadieux, M.P. for Vaudreuil, far right, spent a day on the campus touring the various facilities and also participated in a tree planting ceremony at the Arboretum. He is seen here with, l to r, Marcel Couture, Bruce Coulman, L.E. Lloyd, Jean David, and A.F. MacKenzie.

not a real thing at McGill; it was just because people didn't know each other well enough and the 20 odd miles that we are separated by was a bigger barrier than we think it is. One of my objectives over these years has been to improve those relations, and I think they have been improved. There is a much better understanding on the Montreal campus of the capabilities of the people here, and part of this is a reflection of more of our people being on McGill committees. There is also less of a psychological barrier among our people that downtown is not as remote and those 20 miles are not formidable. There is a much healthier relationship between the two campuses, and I know the people downtown feel this as well.

One example is the Nutrition and Food Science Centre which is a joint

venture of the Faculties of Medicine and Agriculture. Here is an obvious reflection of mutual respect between these two faculties in terms of establishing a centre. It still has a long way to go in terms of its original mission, but this will happen and we have to participate as well as the people downtown.

... the Rural Community

Lew Lloyd Most are aware of the so-called problems that we had leading up to two years ago when the Quebec Farmers' Association and the Quebec Young Farmers left this campus and went to offices in Dorion. When that happened it was a low point in my eight years here because it appeared as if these organizations were doing this because we at Macdonald didn't have



Greeting Dr. Gilles Julien, Executive Director of NSERC, centre, are, l to r, A.F. MacKenzie, Associate Dean Research, Dean Lloyd, Gordon MacLachlan, Vice Principal Research, and Dean Designate Roger Buckland.



Just prior to the official welcome to the members of the Quebec Women's Institutes at their annual convention Dean Lloyd posed with members of the executive, front row, l to r, Sheila Washer, Daisy Henderson, Gwen Parker, and, back row, l to r, Lucy French, Ina Kilgour, and Doris Cascadden.

any particular feeling for the rural community, which was completely wrong and everybody now knows that this was wrong. The events leading up to that departure are history now and I don't want to go into them or to resurrect them in any way other than to say that since the spring of 1983 our staff members have shown, essentially on a voluntary basis, that we do have an interest in the rural community. Our people have been going out to any meetings to which they are invited when they can get away, and they are doing all the things that I think we should be doing for the rural community.

We have got back to having farm days which had been left aside for a number of years; and, while trying to reach other segments of our public, we have put the *Macdonald Journal* on a new footing. We have major articles for the

rural community in one of the four issues each year and to some extent in each of the other issues.

At this point in time the QFA and the QYF have been invited to return to this campus, and I think this is a very good likelihood, if not this year, then next. The unfortunate events of two years ago are over, and our people have helped restore the feeling in the rural community that we are not disinterested in them.

The Quebec Women's Institutes, of course, have a special place in my recollection of those times in that they stayed loyal and remained with us. They said they had no intention of leaving the campus, whereas they might well have done so if they had felt that we weren't interested in rural Quebec. The fact that they stayed with us provided at that time and over the intervening years a kind of confidence

among our people and a link that would not have existed at all if they hadn't stayed with us.

The AQREM (Association of Quebec Regional English Media) people also stayed with us and, again, we were and continue to be grateful for their support.

We are well on the way to reestablishing the kind of relations that existed quite a few years ago.

... the Alumni

Lew Lloyd We have a great alumni and each year the Alma Mater Funds that are available on a discretionary basis to the Dean have been increasing and for this I am most appreciative. The people that we have to get involved are the more recent graduates and I know that you, for one, have been trying to do that through the *Journal*. The Macdonald Branch tries to get them to come back to reunions, but there are still more oldtimers than young people, although with the five-year cycle of honour classes even some of the more recent classes are coming back after a five-year period.

It requires a certain degree of maturity to come to the decision that Macdonald College has done something to get you to where you are. The Mac spirit is still there fundamentally and this is partly a reflection of smallness, which we still are relative to many other faculties, as well as to our dislocation from the main campus which contributes as well in a positive way as opposed to the negative way I mentioned earlier. The Mac spirit is still there among our graduates, and it will prevail so that eventually they will come back and become participating alumni.

Reunions are very successful and our Leadership Day last fall brought a group of people here who were interested in the presentations of activities that are going on in the faculty. As so much has changed they were particularly interested in knowing what people are doing now.

... Government

Lew Lloyd The budget cuts have been very much a part of the university's existence for the last five or six years and from what we can see they will continue to be so, at least into the immediate future. This has created

great hardships for the university. We are still trying to do as much as we did before with less facilities, and I think the time will shortly arrive when it will be completely impossible to do that *ad infinitum*. Our staff must be complimented in that they have gone through these difficult financial times with the minimum of complaint. Increases in salaries have not been given when other universities have had them, and they are aware of this. They don't like it but there is no vicious complaining about the situation. They are having to do the same thing with less money; each year the dollar is worth a little less than it was a year ago. Our operating money is not going up. As far as our faculty is concerned we haven't lost much in terms of programs, but we haven't been able to go ahead as we might have done had we had reasonable financial support from the government. If we had had the same money this year as last, that would have been great, but each year it is less. You can't expect to absorb the increasing cost and do more; we're trying to do the same. Many of the things that we know should be done have not been done for financial reasons.

An unbelievable situation in Quebec is that students are paying far less tuition fees — anywhere from one half to one third — than students pay anywhere else in Canada. At a recent Board of Governors meeting someone said that if he were a student he would be plugging for increased fees in Quebec so as to ensure the fact that he would get a decent education since the money was obviously not going to come from the government. One example, if the fees were doubled from what they are now, about \$500, to say \$1,000 or \$1,100, this would eliminate the deficit of the university in a year. There is always resistance by students to increased fees, but I think the time is coming when they are going to have to appraise the situation themselves or face the prospect of some universities going down the drain.

On the plus side, research grants from the Quebec Ministry of Agriculture have been increasing in terms of amounts and this is one area in which they are able to visualize a universal need. Each year through the CRSAQ funding system we get more money than the previous year and we appreciate this, but it is the operating funds

for the university that are really a problem.

The campus itself has been one of your interests and concerns — what's been done since you came?

Lew Lloyd We moved into the present complex of buildings in 1978. The results of all the heavy construction were evident, and I particularly remember the first reunion in the fall when some of the people coming back were just dismayed. "The beautiful campus that we remember is a complete mess now and quite frankly I wish I hadn't come back because it has destroyed my wonderful memories," was the type of remark I heard. Others said, "I don't think I'll come again." It was obvious to me that this had to be rectified and quite a bit of our discretionary money from alumni and so on has gone into campus care in the intervening years. The campus is now getting back to those good days when it was beautiful, and Peter Knox and his people have done a tremendous job in this regard with a small amount of money. We get a relatively small amount of support from the university on a per square meter basis for the land that we have to look after, and we have a big area in which to clear roads in winter, and mow, plant flowers, shrubs, and so on in the summer. We have had a large amount of money going into the removal of diseased elms and their replacement by a variety of younger trees. I like to think the campus is looking nice again — at least it looks so much better than it did in 1977-78.

What are our future research needs?

Lew Lloyd Research in the Faculty of Agriculture is a healthy part of our activities and this was shown by Gordon MacLachlan's (Vice Principal Research) recent figures that show that on a per staff member basis in terms of research income this faculty compared favourably with the Faculties of Medicine, Science, and Engineering.

We are doing well in this area but we could do a lot better if we could get further into the area of biotechnology. We require additional staff for this, particularly in Plant Science, Animal Science, and Microbiology. We have to get ourselves into the 21st century and that is only 15 years away. I hope we will bridge this gap much sooner than

that. In the first place, with our financial restrictions it is hard to open up new positions for these specialized people and, in the second place, there are so few of them that they are being gobbled up in industry at a great rate at salaries that are way beyond what universities can pay. Looking ahead we are going to need bigger bucks to really get into biotechnology in a meaningful way.

How is the McGill Advancement Program (MAP) progressing?

Lew Lloyd They are now around the \$46 million mark of their \$61 million objective. We will benefit because one of the priorities that we established was the renovation of the farm buildings, and we are talking not just about farm buildings to house animals but about some of the real working laboratories of the Department of Animal Science primarily, but also Renewable Resources — the soils people and the wildlife biology people have labs over there. This is a long-term project. We have enough money to start building the new dairy barn this summer and we hope it will be finished by next year. The next phase will be to work on the swine facilities, and the final phase will be to put the present poultry facilities, which are on this campus, over on the farm.

The other part of MAP where we have been successful was obtaining funding from the Weston Foundation for the Chair in the Nutrition and Food Science Centre.

The library hasn't had any direct benefits as yet. The whole library system at McGill is going through an automation process at the moment and our library will benefit from this. Our problems are in space limitations in that libraries hardly ever shrink.

If you were to ask what the biggest single problem for the faculty is as we look ahead, I would say it is a matter of space, academic space for offices, for undergraduate teaching rooms, and for research labs for graduate students. Our biggest room holds 180 students with some difficulty, but we're taking in classes of 220 and more in first year so that is already a severe problem for us. We have 250 graduate students, many of them coming through the walls, particularly in Renewable Resources and Agricultural Engineering.



Pauline and Lew Lloyd are presented with a painting of the Dean's residence by artist Graham Scholes who attended a roast and toast in the Dean's honour. Dr. Herb MacRae, Principal of NSAC, is seated at right.

... Macdonald Staff

Lew Lloyd When I went to Manitoba, I never thought of making a clean cut with Macdonald; when I went to Cornell, I didn't know what was ahead but I ended up coming back, and in Aberdeen I knew I was coming back. Now as I take early retirement it is obvious that I am not going to be coming back again, and when I have had occasion in recent weeks to think about this and about the people here, I think I can leave without any bad thoughts about anybody, which is remarkable and says a lot for the people with whom I have been working. As you say, I have been able to maintain working relations with the people who have not agreed with me and with whom I haven't agreed. I hope I have done things fairly with them despite the fact that they may not have provided me with support when I thought I needed it. It would be wierd to expect everybody in life to agree with you, but over the last eight years most of the staff have been completely supportive and I leave with nothing but good feelings. Certainly nobody expects that life is always smooth and it isn't but there is something about the Macdonald spirit that will circumvent all of these minor difficulties.

Advice for the New Dean

Lew Lloyd No specific advice other than keep young and be prepared for a lot of long days and hard work. Going back to the beginning when you asked why am I leaving, the time comes when energy is needed, and I think Roger Buckland is the proof. Our Prin-

cipal came, for example, as a very young man, and he has needed that energy and youth that he had, and I think Roger Buckland has that combination of energy and enthusiasm which is going to be good for this place. My advice would be to maintain that enthusiasm even through bad times, because it isn't always easy but it goes a long way to meeting problems if you can maintain it, and when you have difficulty in maintaining it, then you don't do the job as well.

Would you choose agriculture again?

Lew Lloyd Yes. I marvel that I happened to get into the field in the first place, and I have no regrets at all. I would do it again and would recommend agriculture as a career for others, particularly in view of the fact that we don't have nearly enough people in the field. People have to eat and agriculture is a never-ending occupation. When you think of the diversity of the types of involvement: from an entomologist to a nutritionist to a poultry geneticist to an ag engineer. Agriculture can accommodate almost any inclination that an individual may have.

You are soon to be made an Emeritus Dean at the University of Manitoba and an Emeritus Professor at our Convocation on June 4.

Lew Lloyd I am extremely appreciative of both these honours. Both are surprises. Having been away from the University of Manitoba for eight years, their honour has to be more of a surprise; and it is exciting to think that you haven't been forgotten because I

spent very pleasant years there and three of my children graduated from there. The one here is also exciting and is what I construe as a glorious culmination to a long association with the university.

You recently survived a roast and toast.

Lew Lloyd That was a never-to-be-forgotten evening. My feelings about that evening are very positive not because of the things that were said and done but because some people took the trouble to organize it and other people paid to come to it. It was great to see Herb MacRae here from Truro, Jim Woods and personal friends of ours from Ottawa, and a group of people from the downtown campus and from the Ste. Anne's community; I really appreciated everyone coming.

Is Pauline looking forward to your retirement?

Lew Lloyd Yes, she is. Any wife of a person in my position is necessarily exposed to the moods and the ups and downs, and whereas you make a great attempt not to bring your problems home, they seep through into your home life and she has had a lot of that. As we move to Clarence in Ontario in June this will be our 10th move in 35 years. Think of what a wife's involvement is in that many moves — that many curtains to hang and redesign, that many drapes to fit that many windows, the packing, unpacking, and discarding. You marvel at the stamina. She has been very supportive all this time, and I think having the stability of knowing that this is the last move is appealing to her.

Life after Macdonald?

Lew Lloyd This summer I hope to be able to relax. I have a large garden, which I spent all this past weekend getting in, and a lot of grass to cut and clearing still to do at one end of the property. I enjoy doing that kind of thing and I belong to a golf course which is just a mile down the road so that, too, will fill in some of my time.

On September 1 I start working in Ottawa. I'm going back to being a nutritionist again with the Food Research Institute of Agriculture Canada. That should occupy me until I reach legal retirement age if there is such a thing by then in Ontario.

Tackling Blindness One Small Step at a Time

"I had a wealth of experience, a brand new suit, and was ready for a different challenge." Those were Jim Bergeron's enthusiastic comments about the end of his first job after graduation from Macdonald in 1974. Little did he know then that the biggest challenge he was yet to face was blindness.

Anger, exhilaration, frustration, tears, joy — you name the ups and downs, the highs and lows and Jim Bergeron has been there. He's experienced them all but most of all he has a zest for living that is stronger than any problems he has or will encounter. He's a strong, determined young man that will do his utmost to surmount all barriers and if he can't do it alone, then his friends, including many Macdonald grads, will help him along the way. They obviously care and he in turn turns their help into help for others who he feels are less fortunate.

One of the friends he made while at Mac is Anna Whitton. She told us that they were students together at Mac just after Education moved to the downtown campus and because the student numbers were small, good friendships were formed that have lasted ever since. Anna interviewed Jim for the Journal late last summer and we thank both of them.

What made you decide to go to Macdonald?

I came from St. Hilaire where I was able to step outside the back door and cross country ski for miles. The neighbours were farmers and orchardists and their way of life appealed to me. I made inquiries at high school and all directions pointed to Macdonald College where I was accepted. I chose the Environmental Biology option and have never regretted that decision.

I remember you were keen on basketball

Yes, basketball and football. When I applied to Macdonald, I got a letter from Bobby Pugh, who is now head of the Canadian Interuniversity Athletic Union, asking if I would join the football team.



Jim Bergeron and his Guide dog Snoopy.

I'm five foot 10 inches and 160 pounds now and this is the biggest I have ever been, but I went out for the team and those guys were huge! Remember Harry Younie? He was the first fellow I met. I remember my first game which was against the Carleton Ravens. I was running back punts. You know how you pay your dues, well I think that was it. I ran back punts against one of the top 10 teams in Canada.

Was Harry in front of you?

No. They had a funny rule back then

that when you ran back punts you were on your own — there was no blocking allowed. They kicked the ball to you and it was a race to see if you could get out-of-bounds before somebody could jump on you. I hung in and I played for Bobby Pugh, Ray Madder, and George Wall. My best years were with teammates such as Jeff Mills, Don Hooper, Howie Hoag, Mike Schofield, and Ian Kirkpatrick. We had a very competitive and good team in that league. It was a heck of a lot of fun as there were some crazy guys on that team.

After college I started playing rugby

— it was the Macdonald team then and is now the Ste. Anne's team. My wife Sue was on the women's team and the people at the games persuaded me to play.

You had a couple of jobs before the one you have now, didn't you?

Three actually. My first job was contract work for the Canadian National Museum of Natural Sciences in Ottawa. I got to work in the James Bay area flying out every day doing plant surveys. That was enjoyable. Rod Morin, who has his Master's in Wildlife Biology, was also up there at the same time. I knew there was a future in that line of work but, when my contract ended in six months, I had a wealth of experience, a brand new suit, and was ready for a different challenge.

My next job was with Robin Hood and I thought it was great. I spent the better part of a year there, mainly testing the use of eggs in different ways that would help the baking industry. Then I got into pharmaceutical sales with Block Drugs as their Quebec representative. I was with them for 2½ years and it, too, was good experience. I was selling to doctors and pharmacists. People tend to shy away from sales, but it is one of the best areas to get into. You learn the product line, you learn communication skills, and in some ways you learn about human nature as well.

Was it while you were with Block that your eye problems started?

Yes, I went to the doctor and he told me I had an eye problem caused by my being diabetic. My eyes might get worse in five years or might never — there was no guarantee. I didn't worry too much about it. I didn't get the itch to change jobs again, but I did get the itch to go back to school, and I enrolled in a computer programming course for a year.

Then you got the job with Dominion Textiles in Montreal

Yes, I have been there for more than five years. I'm working in Management Information Systems. I help maintain a system which gives out information to people who have to make decisions

on pricing, purchasing, wages, and so on.

I was on the job, doing well, feeling well, and then in 1979 my eye problem drastically increased to the point that after less than eight months at Dominion Textiles I had to have an eye operation and that was it. I was blind.

I had to make decisions. What was I going to do? Was I going to go back to work? Of course not, that would be impossible. I went back to school again. I enrolled in the Montreal Association for the Blind in order to become rehabilitated. I wanted to be able to cope. Of course, the physical things that you have to deal with go hand in hand with the attitude. I figured I had a lot to go for because I had Sue and our daughter Kelly, who is now seven. (A recent addition to the family is Stephanie, now 1½ years old.) I was young — 28 — with a lot of years ahead, and maybe I could still contribute to something. The people at the M.A.B., who were very nice, told me about the various programs. I said, "I'll take them all; I'm on holiday!"

Actually, there was a six-month delay between the time I went blind and the time I could start at the M.A.B. A friend of mine (also from Mac) Chip Hunter, who had been helping me as my vision got progressively worse suggested I needed a holiday, and I admit it was a pretty rough time. My holiday started by visiting some clubs in downtown Montreal where I found out that "yes" you could still have fun. I had not wanted to go out and see anyone because I was embarrassed and sorry for myself.

Despite my protests Chip drove me to his farm in Florenceville, New Brunswick, and I stayed for three weeks. That guy had me driving his truck on his property, he had me running, he had me cooking, and he took me everywhere to meet his friends. It was good for me. I flew back to Montreal and within four to five days I started my classes at the M.A.B.

I still didn't accept my blindness. It was a very tough time for me because they don't give you the white cane right away, and when I finally got it in my hand I didn't know if it was really good or really bad. I was reticent — it was tough to take the cane.

The M.A.B. is well known as being avant garde in the type of work they do with low vision and blindness and their approach to blind people and the

way they rehabilitate them. Basically, I could do whatever I wanted. I was there all day. During my first week there there was a presentation made by Martin Jablanski, who is now a friend of mine, and Sue Harden from Guiding Eyes for the Blind. Martin is the executive director and Sue works as liaison between the clients and the school. John Hall, who was my mobility and white cane instructor suggested that I attend the seminar given by Martin and Sue. Once again I was like a rookie at football camp. A lot of people there had been blind for a long time and were there with their dogs. I didn't think I had the right to say anything so I didn't. That was February. I remembered the name, Guiding Eyes. I progressed. I did my mobility training, my housekeeping training, and my braille, which I am still very poor at, and I learned to type. I learned to use the different types of machinery that M.A.B. had. I figured that if I was going to have to live with this, then I was going to do it as well as I could.

One day I went in and told Mr. Rudkin, the head of the mobility department, that I was seriously thinking of getting a guide dog. I told him I would like to apply to Guiding Eyes and he said it was a great idea. Guiding Eyes accepted me and told me there was a six-month waiting list.

Is Guiding Eyes Quebec oriented?

No, Guiding Eyes, which is a non profit organization, is based in Yorktown Heights, New York, but it is world oriented. The only criterium for getting in there is that you have to be blind which means less than 10 per cent vision. Total blindness is less than that. With 10 per cent vision if you are four or five inches away from the television set, you can watch a hockey game and see the puck. Relative to me that is good vision.

In 1980 I started a 26-day training program in Yorktown Heights and was introduced to my first dog, Hickory, a white Labrador. Getting your cane for the first time and then picking up your harness for the first time — that is completely different. The cane was slow. When I got it, that was it. The best thing that ever happened to me was picking up that harness and going! Speed. I was moving. I was really moving. This dog was pulling me all over the place. It was fantastic. It was an

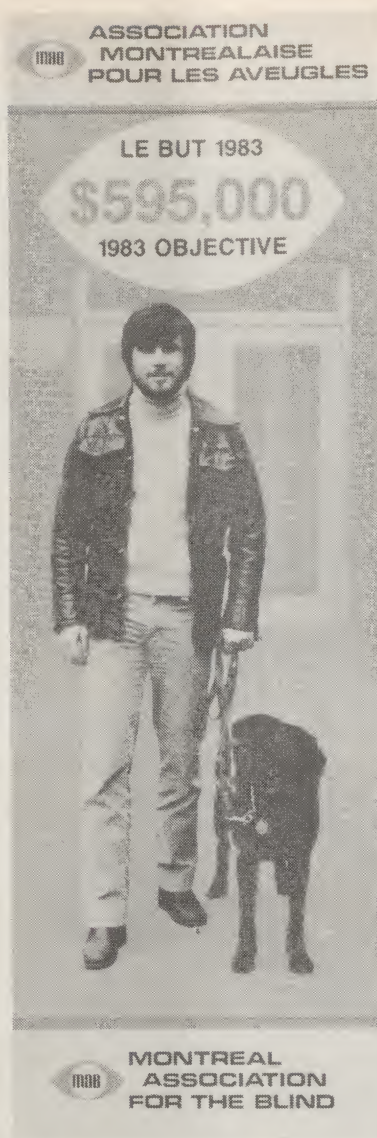
exhilarating experience. To get a harness in your hand with a dog on the end. For me personally the permanence that I read into getting a white cane was a bit depressing. I could have read that into getting a dog, too, but I was just so exhilarated.

You got your freedom back?

For me a guide dog is great. A lot of people who are blind would say that's for him, not for me, and they are absolutely right. You have to want a guide dog. There is a lot of work involved in getting the dog to do the right things at the right time. It isn't automatic that when you pick up that harness everything is going to come on the first day. It takes 26 days of training and a good six months of working hard every day with a dog that is going to test you to see how far he can go. How much he can get away with. You have to set the boundaries up for yourself. It's between you and the dog. Some people's boundaries are really wide and they work well with that; others are really tight. It's the way you want to set it up with your dog because he will stay within those boundaries. You may see guide dog users who are very poor because they have let those boundaries get too wide and they don't have any control and those that are good. I hope I'm in the middle. I want to make it a pleasant experience to go out and walk around with my dog and have fun.

I used to see a man — George Cohen — walking with his dog on St. Catherine Street in Montreal and I would want to go up to him and say, "Hey, that's terrific, that's fantastic." I never think of that now. I'm just going to the train; I've got to get home to Valois because I'm starving.

Guiding Eyes asked me if I would like to be on their graduate council as a volunteer for four years. They fly you down to New York and you set up policy criteria, act as liaison between people who have dogs and the school, and try to help with information, public relations. I was really honoured when they asked me and it has just grown from there. I got involved with fund raising and a walk-a-thon. I got involved again with the rugby team who has taken me under their wing along with Dominion Textiles. They had a big fund-raising effort for me the first



Jim does voluntary work for both Guiding Eyes and the Montreal Association for the Blind.

year. As a matter of fact the very first year I was in I raised more money than anybody else in the walk-a-thon. It was a pleasant surprise. This fall three Madconald graduates, Martin Silverstone, Jack Domaradzki, and I hope to raise between \$2,500 to \$3,000 through my affiliation with the Pointe Claire Cubs and Scouts, the sale of calendars by the Ste. Anne's rugby team, and pledges for my walk-a-thon and a 10 kilometer run that Martin and I will do together.

I have really become involved in this. I go down every year. Due to a recent vacancy on the graduate council, I am on for another two years.

As well as doing volunteer work for Guiding Eyes, I try to help M.A.B. when I can. The work that goes on with M.A.B. is usually from nine to five and

that is when I work, so it is difficult. They have employment seminars which I am pleased to say Dominion Textiles is participating in. Before I went back to work I did do schools and service clubs with Hickory, explaining why people do or do not want a dog, what a dog can and can't do. I tried to clear up a few misconceptions.

Dominion Textiles have been behind you 100 per cent?

Yes, they have. Here they were faced with an employee who had been there only a few months who had gone blind. I was lucky. I had a few things going for me, too. It was the International Year of the Handicapped and I became their project, and I'm still in there.

Sometimes I wonder if I'm doing everything well. I don't know. Maybe I'm rough on myself; maybe not. There are frustrating times. Dominion Textiles had just opened up a very big field that I could work in. They said here it is. Do what you want. Find yourself. You will know the best way to do it; if you have any problems, come and see us. There is no real way written down as to how a blind person can get back into a job. There are a few guidelines that you follow but as everyone with sight is an individual so is every blind person. Sometimes it never works out. I think that overall, including the frustrations we all have had, it has been very, very good.

During the first year my dog, Hickory, died in December from a rare form of cancer. I phoned Martin Jablanski and he found me a spot for January 9 to get my replacement dog (Snoopy a black Labrador). There was no obligation but \$50 is suggested as a contribution for a replacement. Each dog, by the way, costs from \$8,000 to \$10,000. The night before I was leaving for Guiding Eyes, Martin and Serge Blondeau came with \$150 for the dog. For the last four years I have done annual campaigns with calendars to help in fund raising for Guiding Eyes for the Blind.

Describe the Walk-a-Thon and the Run

This happens every October in Yorkton Heights on our Thanksgiving



These photos, taken after this interview, show Martin Silverstone and Jim Bergeron participating in a 10 kilometer run for Guiding Eyes in Yorkton Heights, New York.



weekend. It is the only event that I know of where the handicapped people participate themselves. There are about 70 people that come from all over Canada and the United States. This year there is a fellow coming in from Israel.

This will be the 10th walk-a-thon. Initially, people were against it as they didn't think it would raise that much money. Actually, in terms of cost-benefit, it is very successful. In 1984 \$85,000 was raised for the school. This is all money that the blind made in individual projects in their own communities. I'm collecting pledges and selling calendars. About 60 out of a 1,000 graduates from the States and Canada participate.

Martin Silverstone and Jack Domaradzki, both members of the Ste. Anne's Rugby Club, are going with me. We are going to stay in New York City for a couple of days and have a good time. I must tell you a story. There is a rugby bar on 77th and 2nd and last year Martin, Jack, Snoopy, and I walked in and I called out, "Is this the rugby bar?" The bartender said, "Yeah. Come on in." I said, "We're from Ste. Anne's" and would you believe he said, "that's just outside of Montreal." He went on to tell us that he had a friend who played up here for awhile and promptly telephoned him. The first thing the man on the other end of the phone said was "Is that crazy guy Martin there? I'm coming down!"

Last year I did the walk and Martin did the run alone. This year he is running with me. Participating in the run this year is something new that I am trying for pledges. There are pledge forms that may be filled in and signed and, of course, you can donate to Guiding Eyes at any time. Donations go to the maintenance of the school and to help some blind person somewhere to get a Guide dog.

Martin and I will be running 10 kilometers. I think I can make it under 50 minutes — that will not only be making it, it will be something to brag about. It isn't too hard; about six miles an hour, which is a mile in 10 minutes.

Martin and I are out running three times a week. I've also been training on a stationary bicycle — about half an hour a day to keep up my breathing, but the best exercise for a 10 kilometer run is to go out and run 10 kilometers as many times as you can.

Does Snoopy run with you?

No, I wouldn't put him through that; he works hard enough for me as it is. I will be doing one circuit of the walk-a-thon with him which is three miles. As well as the walk-a-thon and the 10 kilometre run, I plan to walk around with a tape recorder interviewing different people from various parts of the world that participate in the event for our newsletter which comes out four times a year. Snoopy will be with me for that.

We should go down and see you run

One year you should. Maybe a whole group of people could go down. They put aside a 3½ mile circuit for the walk-a-thon and all 60 dogs and owners participate.

What is Susan doing all this time?

This year she is going to maintain the household. Sue flew with me the first year, and we had a great time. It was the 25th anniversary of Guiding Eyes for the Blind. They started in 1956 in a little house and trained 10 people the first time. It has come from a very small beginning to being one of the premier schools. I don't know if they are number one, but I do know they are up there.

The choice between the white cane and the Guiding Eye dog depends on what is best for the individual

Yes. It is only the blind person that can evaluate himself. He knows if he wants a guide dog or not. If he does make that decision, he has to realize he is going to have to work hard. It is not going to be easy. There is going to be lots of frustration. The dog is going to do the opposite of what you want. How do you cope? How do you deal with that? Do you get frustrated? Do you get upset? Yes. Do you go back to your room at the end of the day and cry because it is absolutely impossible? Yes. Do you want to leave right in the middle because you figure it will never work? Yes. It all happens, but you just have to stick with it and in a year you won't believe how far you have come.

You are going to go through frustration at school. You are going to go through frustration when you get home. But it will work. It is worth putting in seven to eight months of frustration which will be less and less each day, till you get to the point where it will be just great. You have to be the type of person that will go through that endurance because that is what it is. It is not for everybody. Actually, only about three per cent of the blind population use dogs.

If you do, your mobility increases

Yes, and for me mobility is the most important thing. If I didn't have it, I don't know what I would do. I have a big advantage. What do you do with a blind person that was born blind? There are a lot of blind people who were born blind that have dogs, but I have the advantage in that I know what a bus looks like, I know what a sign is like, what a street is like, what a row of houses look like. I know how big the city of Montreal is and how to relate to it. I paint pictures of everywhere I go and everything I do. It's not true for everyone, but that is how I work it. For someone that has been blind since birth it is more difficult. I don't know how they do it, but they do.

I admire people who use the cane; some are excellent cane users and go from A to B fantastically quick. I couldn't do it. I do use a cane at the office. It would be unfair to use the dog because it's a little tight in there.

Did Sue have to go through an adjustment?

When you have someone going blind in the family it's a tragedy. In a lot of cases the blind person is catered to, but you have to realize that the spouse is going through the same trauma and often that has been overlooked. There is a big period of adjustment and there are frustrations for that person as well. Recognize it. Realize it.

Has been blind changed your life completely?

There are some major changes and I do act and think differently but that might also be because I am getting

older. They tell me I'm going grey. I'm a lot more extroverted than I used to be.

There are many blind people out there who have done a lot more than I have. I know a girl who has just finished her last year of medicine at McGill as a blind person. She could see for her first three years. She has surpassed all expectations in terms of how she is coping. She will specialize in dealing with cancer patients. I think what she has done is fantastic and I am sure that she has had a lot of frustrations. She is absolutely amazing.

I took one small step at a time. Direction is very important when you do these things. If you make a mistake you have to back track and start over again, but as long as you start taking that one step at a time you will look back and discover that you have covered a lot of ground.

One very small step to go to the Montreal Association for the Blind. Practicing every day. You can do braille; you've got mobility; you can type, you know how to walk around the house. You can do little things so you don't smash yourself all the time. You learn how to use your ears. All with a little bit of training.

Going to Guiding Eyes for the Blind. Getting the dog was a bigger step. These steps led to participating in the walk-a-thon and then to running.

I am able to do that, too! Wow!

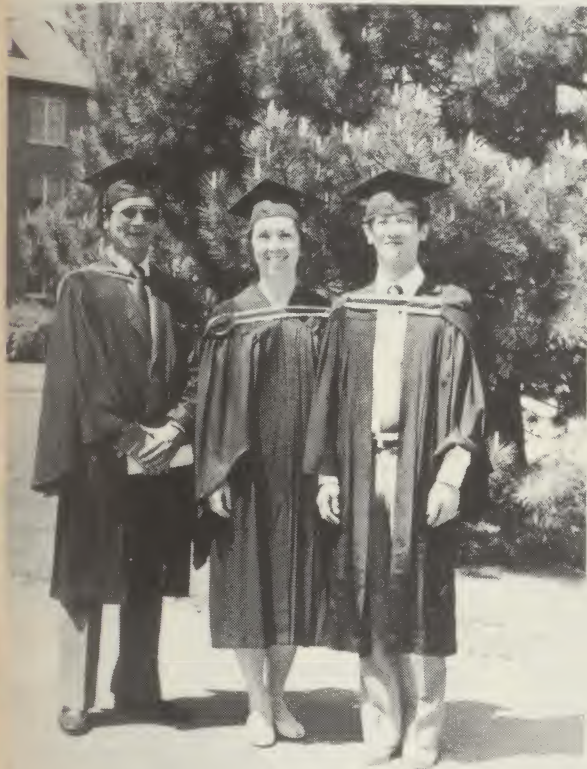
As you will have seen in the photos on page 11, Jim did succeed in his goal over the Thanksgiving weekend down in New York. He finished the 10 kilometer run in under the desired time of one hour, although there is a dispute about the exact time between Martin and Jack! A booth was set up at the circuit (they called it the Canadian booth), and Jim did interview people involved in the walk-a-thon from the booth.

I would like to thank Hazel Clarke, Editor of the Macdonald Journal, who edited my 40-page interview for me. I wouldn't have known where to start.

But most of all I would like to thank Jim Bergeron for sparing me a few hours of his hectic schedule to do this interview. I learned a lot from him that I think is very beneficial to my way of thinking and I hope to everyone else's. (Anna Whitton)

Convocation

June 4, 1985



Professor K.F. Ng Kwai Hang of Animal Science poses with his Master's students Andrée Marziali and Hiroshi Takagi. Andrée, who is from Bedford, and Hiroshi, from Tokyo, met and married while doing their postgraduate work at Macdonald.



Aleida M. Sanderson-Bagchus, majored in Consumer Services and received the Governor General's Medal in the School of Food Science.



Marie-Anne Keurentjes of Henryville is shown being capped by Principal Johnston. Her brother Jean graduated from the Diploma in Agriculture Program and received the Quebec Ministry of Agriculture Gold Medal. He, unfortunately, was unable to attend the Convocation. Marie-Anne majored in Dietetics.



Jeffrey Blair, from Franklin Centre, received the Governor General's Medal in the Agricultural Sciences division. Jeffrey majored in Plant Science and is seen here being congratulated by Steve Olive, Registrar.

Honorary Degree

Mr. Chancellor. It is my privilege to introduce to you, and to this Convocation, Professor R. Merton Love, a distinguished agricultural scientist, who has contributed to agricultural development in North America and around the world.

Professor R. Merton Love is Professor Emeritus in the Department of Agronomy and Range Science, University of California, at the Davis campus.

Professor Love started his academic career at the University of Saskatchewan, where he received the B.Sc. (Honours in Biology) in 1932 followed by the M.Sc. in Biology in 1933. This was followed by a period at McGill University. He obtained his Ph.D. in genetics (*magna cum laude*) in 1935 from McGill. During this time he was a Research Assistant in the Department of Genetics of this university.

From 1935 to 1940 Professor Love worked in the Cereal Division, Central Experimental Farm, Ottawa, where he continued to work on cereal cytogenetics, the area of specialization he had followed at Saskatoon and McGill. The objective was to produce rust resistant bread wheat by means of wide species crosses. His findings were a great encouragement to plant breeders in those early days.

In 1939 Professor Love obtained a leave of absence to be a Special Lecturer in Genetics at McGill University.

In 1940 Merton Love went to California as an Instructor in Agronomy at the Agricultural Experiment Station. He progressed rapidly through the ranks to become Professor of Agronomy in 1951. His sterling leadership was recognized when he became Chairman of the department from 1959 to 1970. During this time the Agronomy designation was changed to Agronomy and Range Science indicating an important new direction.

Professor Love retired in 1976 but not for long. He was recalled to duty as Chairman of the graduate group in Ecology at the University of California, Davis. These activities involve contact with more than 200 graduate students among whom are many of the future leaders in the field.

An attempt to summarize briefly the accomplishments of Professor Love is a very difficult task. The cytogenetics studies started in Canada continued in California where he carried out a cyto-

logical study of California perennial grasses. At this point he branched into plant introduction and breeding to improve rangeland conditions.

Professor Love pioneered an approach to this large neglected land resource of the world. He has been an inspiring leader in harnessing genetics and ecology for the development of extensive rangeland production.

One of Professor Love's great contributions to agricultural science has been that agronomic principles can be applied to range improvement and that the concept of "climax vegetation" does not necessarily mean that the optimum state has been reached. He defined production agriculture as "man's attempts to overcome the limitations of nature in order to produce the desired crop." Thus rangeland with its multiplicity of species is more complex than monoculture but the same agronomic principles apply to both. He has defined range improvement as "the process of replacing a relatively undesirable and less productive population of plants with a more desirable and more productive type."

Some highlights of his international accomplishments are to be seen in range improvement in Israel, cereal breeding in Brazil, high country tussock rangeland in New Zealand, and a forage program in Ghana.

Merton Love has received many honours in his time and has just received on May 16, 1985, an Honorary Doctor of Law at the Convocation of the University of Saskatchewan, his first alma mater.

Mr. Chancellor, may I present to



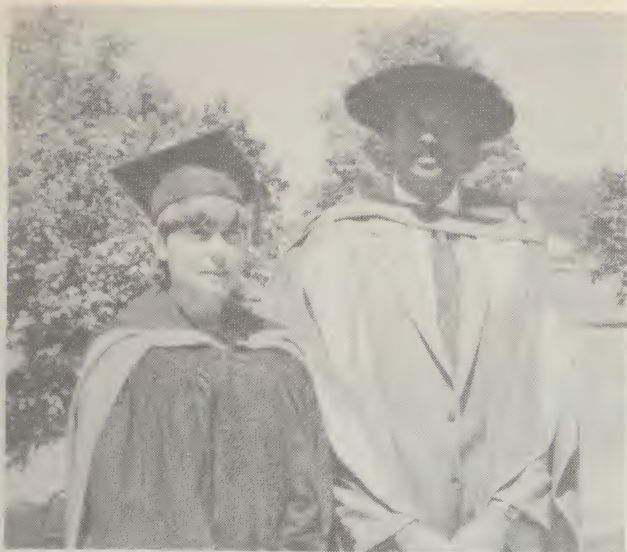
Professor R. Merton Love being congratulated by Principal Johnston upon receiving his Honorary Degree.

you, so that you may confer upon him the Degree of Doctor of Science, *honoris causa*, this most distinguished and productive, McGill educated, university teacher, administrator and research scientist, Professor R. Merton Love.

N.C. Lawson
Associate Professor,
Department of Plant Science
and Director, Diploma Program



Wendy Lynn Asbil of Rawdon receiving her BSc (Agr) degree from Steve Olive.



PhD recipients Suzelle Barrington and Chandra Madramootoo. Suzelle is with the Quebec Ministry of Agriculture and Chandra is with the Department of Agricultural Engineering.



Martha Robinson, BSc (Agr), and her proud parents and brother Michael.



Five proud Masters students from the Department of Animal Science: Bertrand Farmer, John Rhéaume, Andrée Marziali, Hiroshi Takagi, and a "kilted" Hugh Dimock.



A photographer's delight: a happy BSc (Agr) graduate Joanne Lalumiere of Varennes, Quebec.



At the close of the official ceremonies the piper leads the platform party back to the Centennial Centre.

I Remember Diaper Dell



by Dorean E. Estey

For the uninitiated, "Diaper Dell" refers to the housing development constructed by McGill University after World War II for the use of student veterans and their families at Macdonald College.

On September 23, 1949, my husband Ralph, our four-year-old son, Ronald, and I opened the door to Apartment 15, Row (or Block) A of Diaper Dell for the first time. What we saw was a fairly large rectangular living room with one door opening into a small bedroom and another door into a hall-like kitchen with a recessed area containing a sink and a set laundry tub with three pine board shelves above the sinks. There was also a door near the back of the kitchen leading into the bathroom which contained a flush toilet and a bathtub and was shared with the tenants of Apartment 16. There were no furnishings in the apartment except for a broken down student's desk, with a hanging drawer. Ralph eventually repaired this desk, installed a new drawer, and it has been in use as our kitchen table ever since. The

floors of the apartment were covered with already worn linoleum and the walls of Gyproc were painted a rather drab pale green.

The sight was not very encouraging, and I wondered uneasily if we had made the correct choice in coming to Macdonald College instead of the University of New Brunswick which had also accepted Ralph. But after our furniture arrived, was unpacked and set into place, I began to feel better. Our neighbour in A-16, Kay Channon, called and offered to take me shopping in Ste. Anne de Bellevue. On the way she explained that we could walk on any part of the college grounds, including all the lawns, except for the Dean's Oval in front of the Main Building. Even now, I would not dream of walking across this particular lawn which used to be kept so beautifully.

In a matter of days we had settled in and began to take part in Dell affairs. A "Diaper Dell Doings" reporter called to interview us and told us something about the organization of the community.

This housing development, she said, had been built to accommodate mar-

ried student veterans of Macdonald College as well as a few who were attending classes on the Montreal campus of McGill. The first recorded meeting of its residents took place on November 12, 1946, at which time, Mr. C.E. Chaplin, of C-19 was elected chairman. The name of this office was soon to be changed to that of mayor. Elected along with Mr. Chaplin were a secretary, Mr. H.E. Reilly, and two representatives, one of each sex, from each of the rows of apartments. The following year the position of secretary was abolished and replaced by that of secretary-treasurer. The first issue of the Diaper Dell Doings was also published on November 12. This little newspaper had an editor, a typist, a mechanical superintendent, and three Block representatives who acted as its reporters. Diaper Dell Doings contributed greatly to changing the Dell from an amorphous group of families, whose one common component was that at least one member of each family was a veteran, to a real community. During its lifetime, it was generally published twice a month, but during one academic year it came out

every week. By the mid 50s, it ceased publication mainly, I believe, because the Dell was no longer for student veterans only and had ceased to be a community in its own right.

The women on this first elected council were already serving as conveners of several social and welfare activities, such as handicrafts, which included leatherwork, linoleum printing, weaving, and sewing; a Well Baby Clinic, and a basketball team, the D.D.T.'s, with Norma MacAllister, of C-4, as its coach.

To raise money to carry on its activities, including the printing of the Diaper Dell Doings, the council assessed each family 25 cents in taxes. By the time we arrived in the Dell, the taxes had risen to \$1.50 per household, for a total of \$90 a year.

The wives, who had already met in late October, 1946, to form their own organization, met again on November 28, and adopted the name "Univets Wives Organizations." This was later changed to "Mac Vets Wives Organization." Regular monthly meetings were held, and shortly after we arrived I was invited to take part in a program. I gave a talk on Ralph's hobby of coin collecting, taking along some of his most interesting specimens.

Not long after the establishment of the Well Baby Clinic came an offer from the Community Nursery Association to admit Mac veterans as associate members with special financial considerations but with full membership privileges. This nursery school operated in the basement of Stewart Hall for many years and was well patronized by the Dell community.

The physical makeup of Diaper Dell consisted of three rows or blocks of apartments known as A, B, and C for married students and two more (blocks D and E) for unmarried student veterans, who were expected to take their meals in the college cafeteria since these apartments, although furnished, had no kitchen facilities. Many of the first occupants of A, B, and C rows were either newly married or the Dell was their first real home. Since the kitchens had practically no provision for storage except for the shelves over the sinks, young husbands were called upon to become carpenters almost overnight, often without any previous experience. Consequently, the occasional dreadful crash could be heard as a cupboard, nailed into the thin



Diaper Dell Doings



Vol. 3.

Diaper Dell, January 22, 1949

No. 7.

NEWS ITEMS

KATE AITKEN TO BE GUEST SPEAKER AT NEXT MACVETS WIVES MEETING.

Girls, let's have a good turnout when Mrs. Aitken comes to visit our group on Thursday, February 24th. She will have just returned from her "much talked of" trip around the world.

Another thing--Norma McAllister is the convener of the food committee for this meeting. Her "spreads" are something to talk about!!

The Sewing Class will start on Tuesday, January 25th, promptly at 7.30 p.m. Fees may be paid at the end of the month.

Basketball has started again, every Wednesday night at 8.00 p.m. Those interested please note.

The next Baby Clinic will be held Thursday, February 3rd. from 3 - 5 p.m. at B-5.

John Channon, A-16, has been appointed Sales Representative for the Macdonald College Journal. Anyone interested in subscribing (at \$1.00 for three years) can contact him at his home.

The January meeting of the Macvets Wives Organization took place on January 10th in room 107 of the Main Building. At that time we were entertained by the College Glee Club. Many thanks go to the members of this club who gave up some of their studying time to give us the concert.

A special thanks also goes to the food committee for preparing and serving the lovely lunch.

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MEET YOUR NEIGHBOURS

Herschell and Betty Reilley of B-20.

Hersch's hometown is Montreal. During the war, he joined the R.C.A.F., serving in England, Gibraltar, Malta, Egypt, India and Ceylon. He met Betty, who was then in the Waaf's in Thorny Island, Hampshire, England, and they were married in '44.

Betty was born in Winnipeg, and at the age of sixteen, went to live in Dublin, Ireland.

Part of Page 1, reduced in size, of an issue of Diaper Dell Doings.

kitchen wall, came crashing down.

Although in the main, most of the occupants got along very well with their neighbours, there were two sources of potential trouble. One was the thin walls between apartments, which, according to a former mayor, caused many complaints. It was very easy to hear through these walls, and the noise of children playing, radios blaring, or a neighbour having an argument with his spouse could send another tenant to pounding furiously on the intervening wall. Even creaking bed springs could be heard during the night and this was a source of either annoyance or laughter depending upon the personalities of the persons involved.

The other cause of trouble between neighbours was the sharing of the bathroom with its two doors. So many times the door on one side would inad-

vertently remain locked for long periods of time. I recall the time our neighbours went to Ottawa supposedly for the weekend leaving our bathroom door locked. During the day we used the college lavatories, but during the second night I had to "go" and decided to climb out our bedroom window and into theirs, then go through their living room and kitchen and open the locked door. Imagine my surprise when just as I was putting a leg over their window sill, I saw a head rear up from the bed. I beat a rapid retreat and kept very quiet when it was rumored about the following day that our neighbours had surprised an intruder upon arriving home earlier than expected.

It was often claimed that if you didn't have any children when you came to the Dell, you certainly would have before you left. For my two neighbours and myself this proved to be cor-

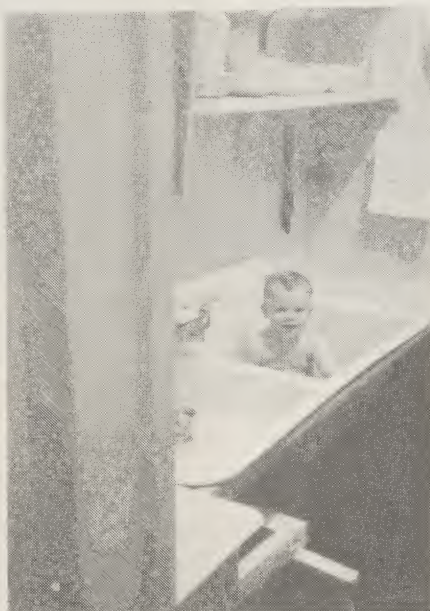
rect for all of us had children in 1950. The late John and Lois Booker in A-14 had been married for nearly 10 years before they arrived, and they had decided that they would never have any children. Both were delighted to discover that Lois was pregnant within three months of moving into the Dell.

The Dell was a wonderful place to raise children of which there were more than 60 while we lived there. There was the cooperative Nursery School in Stewart Hall where most of the pre-school children spent their mornings. Afternoons could be spent climbing the trees across the lawn in front of A row and also at the ends of each; there were lawns to play on, bicycle paths to race along, under the watchful eyes of all the Dell residents as well as "Old Bob," the college's one-armed watchman. The only out-of-bounds area was the lakeside and all children were clearly and repeatedly warned not to go there. There were Saturday morning Art classes given by Miss Jaques at the college. The children were also welcome to attend the weekly presentations of the college's "Lit. and Deb. Society" which were always put on early in the evenings. They also enjoyed many other college events including the Green and Gold Revues, the Founder's Day musical programs, a Christmas party each year in the gymnasium of Stewart Hall, complete with games, refreshments and Santa Claus. Schooling at Macdonald High School was open to all children regardless of religion or language, and most of the residents sent their children there. Many of Macdonald's teachers were "assisting teachers" for the Faculty of Education and were of exceptional calibre in the field of education.

Although the children were allowed to roam around the college grounds almost at will, there were places where their presence was discouraged. One of these was the large field filled with experimental plots where the lawn is now, east of Centennial Centre. The Dean sent a note to all Dell residents asking them to keep their children away from the plots. Ralph called Ronald, then five years old, aside and told him about the request warning him not to go on the field or remove the stakes placed between the rows. The following noon when Ralph came home from classes he was more than a little annoyed to find Ronald's little



"The 6:45 bedtime story." Ralph Estey with son Ronald.



Frank in his tub. "There was no little space I almost had to sit on the stove to take this snap."

red cart almost filled with bright yellow stakes. "Didn't I tell you not to go into the field and take the stakes out?" "But Daddy," replied Ronald, "Betty Jean (Fiskell, also aged five) and I didn't go **between** the rows. We just walked along the edges and pulled out those stakes. You didn't say we couldn't do that."

A number of faculty wives took an interest in the occupants of the Dell, particularly those who lived across the lawn in front of A row in the Cluster Cottages. The late Mrs. A.C. Malloch was particularly helpful when any of us

had visits from our parents. My mother, who came for an initial visit of two weeks, stayed for three months partly because Mrs. Malloch introduced her to so many interesting people at the college and in Ste. Annes and took her to many social events. Mother's long visit, although welcome, was somewhat embarrassing to Ralph at times. Mother was a very large woman, and when she was in the kitchen Ralph could not get around her if he wanted to use the bathroom. Sometimes his attempts to get her to move were hilarious in their inventiveness, made all the more funny because Mother never caught on to what he was trying to do.

Very few of us had automobiles, so shopping, especially for a family could sometimes be difficult. However, Francoeur Brothers, whose store was demolished some years ago to make way for a tavern on Ste. Annes street, had a delivery service and also issued credit occasionally. There was an A and P store where the Metro store is now located which was well patronized by "Dellers." Often in the day or two after allowance cheques were received, some of the wives would walk down to the A and P together, purchase large orders of such bulky products as flour, sugar, cereals, etc., and then hire a taxi, fill it with the groceries, but only one woman would ride back to the Dell in it. Thus for 35 cents several of us received the benefit of the delivery of hefty orders.

Usually we bought our supplies in Ste. Annes, shopping for lumber and other building supplies at the store of J. B. D'Aoust. This company was always prompt in making deliveries, often arriving at the Dell before 8 o'clock. The D'Aoust Departmental Store was also well patronized. In those days it had a grocery department on the mezzanine floor and a toy department on the second floor with an exceptionally large stock at Christmas time. There was also H. Leclerc's 5¢ to \$1.00 store which provided us with a great variety of small items.

Most Dell residents had a small icebox in the vestibule at the front of each entrance where they kept fresh food, and ice deliveries were made three times weekly during the warm weather. The college operated a dairy then and made daily deliveries of milk and other related products. Nearly

every Friday afternoon eggs were on sale which were delivered by a horse-drawn wagon. The children eagerly looked forward to these deliveries because they loved to pet the old horse whom they also visited in his pasture which was across the road from the Institute of Parasitology. From time to time, especially before festive occasions, fresh chickens, geese, and turkeys were also on sale.

Since most households, especially after the first few years, had children, quiet study areas became very important. Many of the Macdonald College classrooms or laboratories were left open during the evenings so around 8 o'clock you could see an exodus of men making their way to the empty classrooms where they could study in a quiet atmosphere. This provided time at home for wives to gather to talk, gossip, or play cards after children were in bed.

A Warm Spot

The apartments had no foundation under them and, although steam heat was supplied along with electricity and hot water for \$30 a month, the floors could be cold. One winter, there was very little snow and the cold winds blowing in the crawl space made the non-insulated floors very uncomfortable for Frank who had just reached the creeping stage and needed to be on the floor for exercise and practice. We partially solved the problem by attaching a garden hose to the hot water tap in the kitchen, laying it in a half circle under the rug on the living room floor and then back to the sink. With little more than a trickle of hot water going through the hose we had a warm spot on the floor for the baby without an excessive loss of hot water. When my own feet were cold I enjoyed sitting so that my feet rested on the little lump in the rug over the warm garden hose.

The crawl space under the apartments with its mass of pipes supplied an excellent environment for some unwanted guests. "What are these funny looking insects that are running around the sink?" I asked Ralph shortly after our arrival. When he identified them as cockroaches I was horrified. From my neighbour, Hilda Fiskell, I learned that cockroaches had been found in the apartments for some time but could be kept at bay, so to speak, but not completely eradicated, by

spraying. I always knew when Hilda had sprayed because for the next few days I would find many of these pesky insects in the sinks and around the cupboards. Then I would clean out my cupboards, and spray and soon would hear Hilda complain to her husband, Jack, that the cockroaches were increasing again. We tried to get everyone in the row to spray at the same time, but one or two tenants would always claim that, while other apartments had cockroaches, *theirs* certainly didn't. So a concerted effort was never achieved.

Where's the Vacuum Cleaner?

Since the apartments were so small, it was difficult to keep them clean, especially if there were small children coming in and out during the day. Seven of us women banded together and purchased a small electric vacuum cleaner for \$5 each. This little machine was passed from one to the other apartment on a daily basis by more or less willing husbands and did a lot to make cleaning easier. As each of us moved away we either sold or gave away our share. I have often wondered what finally happened to that little cleaner which served so many of the apartment dwellers so well.

One member of our community, upon viewing some 40 odd clotheslines strung between A and B rows, almost all of which contained babies' clothes and diapers, decided that what some women needed most was information on birth control. She organized a meeting of interested women and proceeded to lecture us on the various methods, all infallible, she said, that we should be using. The Dell, according to her, simply had too many children and something should be done to curb the population. I can still hear the laughter that circulated throughout the Dell when this lady discovered that she, herself, was pregnant a month or so later. Thus ended the birth control lessons!

The Dell provided an excellent environment for children and adult residents. It was a kind of happy haven for student veterans and their wives. The apartments, each being identical to or mirror image of the others, were great equalizers, and because most of us had little in the way of worldly goods, there was no reason for any pretence of "keeping up with the

Jones's" — we were all Jones's. Although life was somewhat low key, it was never dull. Something was always happening, but the crises were minor and often humorous. Our successes in coping with a wide range of small problems were stimulating and never threatening to others. It is likely, therefore, that this kind of nurturing and supportive environment was just what the veterans needed during the transition period from wartime to civilian life, with the plus factor of the opportunity to further their education. Certainly many of the people we knew have made their mark in their chosen professions. Among those whose names come to mind are Lewis Lloyd of A row, who was mayor from 1950-52, and until recently was Dean of the Faculty of Agriculture of McGill; Harold Klinck, present Chairman of the Department of Plant Science; Edward LeRoux, our next door neighbour in 1950-51, now assistant Deputy Minister (Research) with Agriculture Canada; Charles (Chuck) Gallagher, a neighbour in 1955, now a cabinet minister in the New Brunswick legislature; and Dayle Haddon, daughter of Ed and Terry Haddon, our neighbours while we lived in B row, who became a beauty queen, top fashion model in New York, and is now a Hollywood starlet.

The Dell, which was supposed to be for the use of student veterans only, gradually became filled with other married students and the occasional staff member as the veterans completed their education and left. At first the college authorities kept the rows in good repair but gradually they either lost interest in maintaining them or realized that their period of service was coming to an end. D and E blocks were the first to be removed when Laird Hall was being built. Then in 1966 the other rows were demolished to make way for the Centennial Centre. The lawn in front of A block is now a parking lot, although some of the "climbing trees" so beloved by the children still remain.

I remember walking in front of A row during the demolition and feeling my eyes fill with tears as I remembered the happy times we had spent while living there. Diaper Dell was a wonderful experiment in community living and a splendid place to live both for the veterans and for their families. I wouldn't have missed the experience for the world.

Canadian Dietetic Association Celebrates 50th Anniversary

In 1935 a small group of dietitians from Ontario, Quebec and one each from British Columbia and Alberta met in Ottawa to form the Canadian Dietetic Association. The meeting was chaired by Dr. Margaret (Peg) McCreedy and included Miss Bessie M. Philp, Director of the School of Household Science at Macdonald College and Miss Alice Stickwood, lecturer in foods and administration.

Fifty years later, in June 1985, the Association met in Montreal to celebrate its semi-centenary. The Association has grown and now numbers over 3,000 members of whom 1,000 turned up for the celebrations.

Among those honoured on this occasion was retiring Professor Diane Raymond who was presented with an award for achievement at the Awards Luncheon and was given a standing ovation for her many years of service on countless committees and on the Board of Directors.

Di Raymond is a past-president of the Association and Alice Stickwood was one of its early presidents. Graduates of the College have been involved at all levels of the Association and have served as its Presidents, these include Helen Hood, Jean MacDiarmid, and Helen Neilson.

During the celebrations Macdonald graduates found time to attend a reception hosted by Dr. Shirley Weber. One hundred and twenty turned up to meet with old friends and Professor Helen Maconochie (Devereaux) was there with her candid camera to record the event. There was much chatter and it only ended when it was time for another reception — this one a Champagne and Strawberry party complete with a Ramses II ice sculpture and an orchestra — which lured the graduates away.

The birthday celebrations were considered to be a great success by all. Macdonald graduates worked on many of the Committees: Linda Currie chaired the Program Committee; Mariette Samuel and Francine Simard co-chaired the Publicity Committee, and Karen Murray chaired the Exhibits Committee.

With so many young and enthusiastic members the Association is sure to have many, many happy birthdays ahead of it.



The sign in the background offers a warm welcome to, l to r, Lorna Moscovitch, MSc '55, Helen Hood, '47, director of Toronto General Hospital, with Dr. Shirley Weber, Acting Director of the School of Dietetics and Human Nutrition.



Emeritus Professor Helen Neilson with Barbara Channell Miller, '58, director of dietetics in the hospital at Sault Ste. Marie.



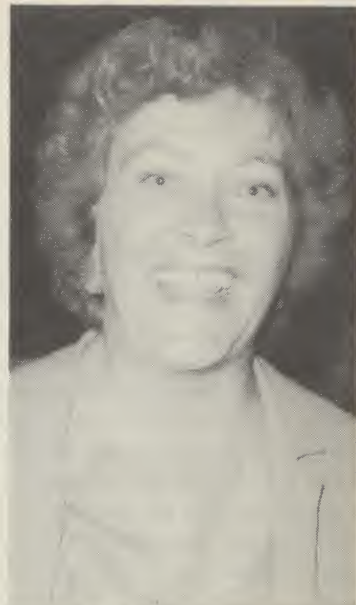
Kristi Roht Willmot, '68, therapeutic dietitian, Hopital La Providence, Magog, Janet Cowan Weber, '69, out-patient dietitian, Sherbrooke Hospital, and Margaret Stevens Norris, '68, chief clinical dietitian, Queen Elizabeth Hospital, Montreal.



Cynthia Parsons Landrigan, '50, of St. John's, Newfoundland.



Louise Duthie, '59, assistant director, food services, McMaster University, and Carol Hayes Greenbank, '49, Huntingdon.



Barbara Sanderson Zouiken, '71, dietitian at Kingston Psychiatric Hospital.



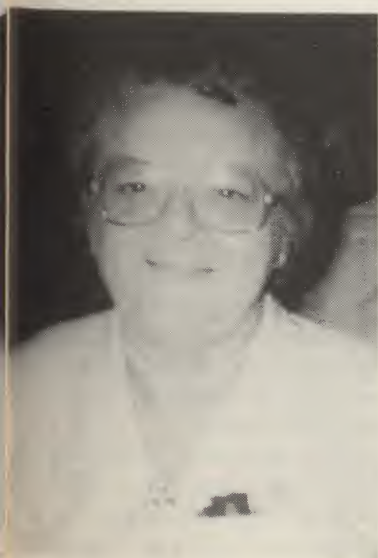
Elizabeth Day Darch, '61, clinical nutritionist at Sunnybrook Medical Centre, Toronto, and Maureen Wilson Thompson, '67, dietitian, Kingston Psychiatric Hospital.



Vera Swazey, '45, director of clinical dietetics, Fredericton.



Sharon Gardner Vanin, '66, with youth services in Saskatoon, and Wendy Cliff McDonald, '62, public health nutritionist, Halifax.



Jean Irving, '39, head dietitian Sherbrooke Hospital.



Sylvie Gauthier, '81, is with Mead Johnson, and Danielle Moore, '81, is with Ross Labs.



Margaret Galloway, '45, director of food services, Burnaby Hospital in Burnaby, B.C., and Miriam McAlary, '45, retired in Montreal.

CAREER DAY

by Hazel M. Clarke

"The work that you two have done for today's event I believe is fabulous. It's an opportunity for students to see what jobs are available and to get to know some of the companies that hire Mac grads." These remarks were aimed at second year students Anne Delmas of Montreal and Suzan Smith of Lachute who successfully launched the first Career Day to be held at Macdonald College last January 17th. The remarks were made by Glen Letendre, BSc (Agr) '77, MSc (Agr) '82, who is with Chipman Inc.

Some 30 companies representing feed, chemical, and food industries, as well as banks, and provincial and federal government departments, responded to the request to come to Career Day and it proved so successful that letters have already gone out to even more people asking if they would be interested in attending the 2nd Annual Career Day which will be held on September 26, 1985.

I either listened in on conversations between students and company representatives, or talked with them myself. I also talked with Anne and Sue and other students to find out the story behind Career Day and their impressions of it.

Anne Delmas, a student in Food Administration, was the catalyst that got the whole thing started.

"I was a student at the University of Western Ontario for three years," Anne told me, "and this was an event that occurred every year on a large scale. It usually lasted a couple of days. In my first year at Macdonald I found Career Days noticeably lacking. Students could only find out about employment either on their own or through the Student Placement Office. I felt that we should put on a Career Day and expose our Mac students to the various industries."

"As External Vice-President on the Students' Council Sue Smith, who is in Animal Science, picked up on the idea right away and was very keen on working on this project," Anne said of her partner who told me something of the staff participation.



Glen Letendre of Chipman and Johanne Trottier of the Public Service Commission discuss Career Day with Anne Delmas, one of the organizers of the event.

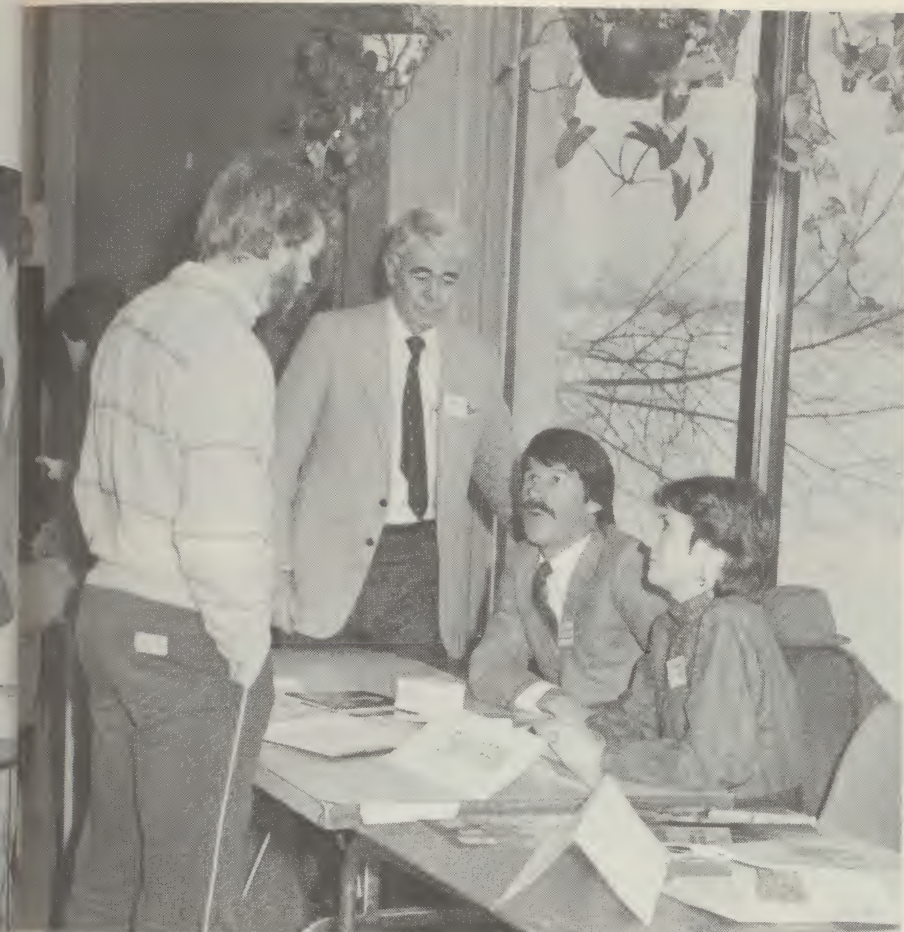


M.P. O'Reilly of Miracle Feeds talks with Suzan Smith, External Vice-President of Student Council, who worked with Anne on Career Day.

"We talked to the staff and sent the heads of the departments a letter requesting that they send us names and addresses or call their friends themselves and invite them to come to Career Day, and we had quite a good response. The members of Faculty who were particularly helpful in getting in touch with business representatives and who also took part in the actual event were Professors Idziak of Microbiology and Zarkadas of Agricultural Chemistry and Physics. The students appreciated their help and interest. We would have appreciated more names and personal contacts and more participation on the actual day, and we hope this year's will be better in that respect."

Anne said that the response from business was incredibly enthusiastic. "Many of them were alumni of Macdonald and they appreciated being asked to do something for their school. We weren't asking for a financial contribution, although it meant taking time away from work to come to Mac. They were pleased to be able to meet students, to tell them what they did after they finished their education, and to offer suggestions. There was quite a lot of camaraderie.

For their part, the students were thrilled. "They were very keen and have already been asking when we are going to do the same thing next year." Anne and Sue both spoke to many company representatives who said



Canada Packers André Lamoureux, Marc Prefontaine, and Martine Bourgeois with Terence McRae, 3rd year student. Photo by Charles Fournier.

that the students were bright, polite, and didn't just ask if they could have a job. They asked about the various businesses, about the research work, and wanted more information. They weren't only interested in the jobs; they were interested in what people did and what the firms did.

"We sincerely hoped and thought that Career Day would be successful," Anne said, "but we really have to thank the students of Macdonald for making us look so good because they not only showed up but they showed up as polished, intelligent people."

I only saw a very few of the staff there, possibly they felt it was not for them and, therefore, shouldn't attend. This coming September, however, the organizers are going to make sure that the staff know that Career Day is an opportunity for them to meet the business people and find out what is wanted in the business world. "We know our professors are very up-to-date in what is going on in industry," Anne told me, "but it would be helpful for our students if they did come out and it would also show support for the

people from the companies that do come. Our whole school, not just the students should be interested in what they are doing. Many people from the various companies were not alumni and they, too, would like to see support from the staff."

Anne and Sue also told me that they did have one problem that they hope will be remedied by this coming September. Some of the larger companies had already been to the downtown campus for their career day in September and thus felt it unnecessary to come to Macdonald.

The reaction from those companies that did come was very positive. When I joined them, Anne and Sue were talking with Glen Letendre of Chipman "I took Zoological Sciences and graduated from here in '77 and then continued on to do a Master's in the Entomology Department. While I was studying, Chipman were looking for someone bilingual who had some research experience and I happened to be the right person at the right time. They have hired people from Mac before. Chipman is a Canadian com-

pany and is part of a large group of companies that make up CIL in Canada. We are basically a formulation and distribution company for agricultural chemicals such as pesticides.

Of Career Day he said he felt it was a great opportunity for the students to see what is available and who does hire graduates from Macdonald. "From the personal contacts that I had within industry, the pesticides industry especially, the number of people that are hired from Macdonald is phenomenal."

One of the questions that Glen was being asked frequently is "What degrees are the companies looking for and what specific areas of study?" His reply, "This is just a personal feeling, of course, but I think in a lot of cases companies are not really looking for someone that has a degree with such and such a major. What's important is to have some exposure to agriculture and to have a degree in agriculture if you want to work for a company like ours. Most of the majors are quite general and you are exposed to a lot of areas of agricultural concern. When they hire a student most companies are looking for many things — they are not looking for what courses he has taken. They are looking instead at an ensemble: his attitude, his personality, is he versatile, can he be trained? Many companies will hire a student before they will hire someone actually trained in a particular field because that person has already been moulded.

"The more agricultural experience a student can pick up in summer jobs is a plus, and a lot depends on attitude; you have to sell yourself." Glen went on to say that interviews are also important.

"Know how to approach the person that is sitting in front of you. If the interviewer is aggressive, then you can be a little more aggressive. I do interviews every year, and I have hired students here at Macdonald. I'm not a particularly aggressive person myself, and some people that I am interviewing actually intimidate me! Serious students take the time to learn about the company. Take the time to fill in the application form and try to aim it to the particular company. I don't think a company will hire someone just on that basis, but it is a bonus. So remember, filling in an application form is not something you do on the corner of the

table while you are having a quick coffee before you go to class."

Returning to the subject of Career Day, he told Anne and Sue that he certainly felt that they should have one again and suggested that they try to plan it a little earlier the next time. "It looks like most companies have obviously responded, and I feel it is good for everyone."

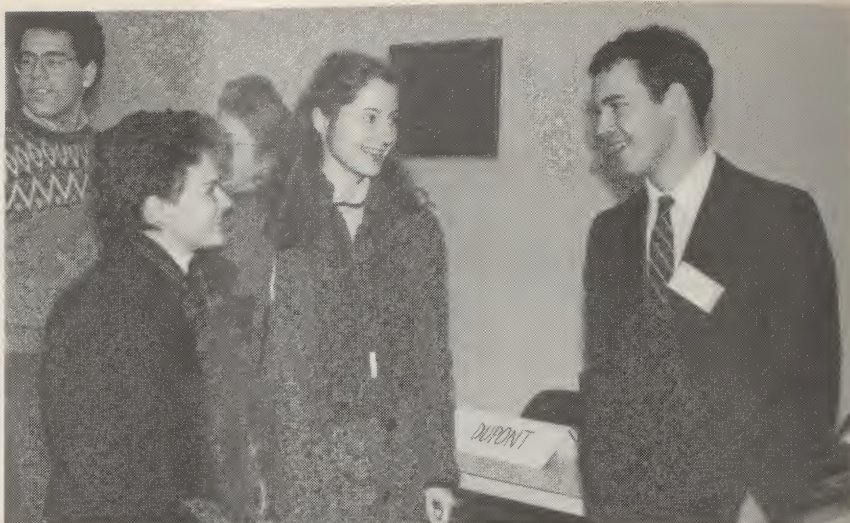
One of last year's Macdonald graduates Bernard Poliquin, who is with Dupont Canada, told me that he spends most of his time in the Montreal area and has already been back to the College quite a few times because he is in contact with professors who are doing research with Dupont's products. He also came back about a month prior to Career Day to recruit two summer students.

"I am a development representative," Bernard told me. "My job is to organize the research and development of products that are not on the market in order to get registration for them." On Career Day, he said, "I like the idea. I like meeting the students and as I was here not long ago, it's good to get back and see old friends. I think it should be done again, and this is a nice informal way to do it where students can come to us and have a chat. I really like the formula."

"I think the job market is good for graduates in agriculture. There are a lot of jobs out there; they may not be the ideal jobs that the student is looking for, but the important thing is to get a foot in the market. Once you have a job, it's a lot easier to look about for other opportunities that might interest you. I was working with Chipman for two summers as a development assistant. They had nothing at the time I graduated, but that foot I had in the market meant I knew some people who knew some people and I got this job."

"I joined Alfa Laval 10 months ago and I'm enjoying it," said Diploma 83 graduate Michel Viau. "I am with customer service for the dealers in Quebec." Michel is working in Brossard, at Alfa Laval's head office in Quebec. They have two divisions, agricultural and industrial, and Michel is working with the agricultural division which deals with sales of milking equipment, pipeline milking units, bulk coolers, and feeding systems.

"I found the job through the Placement Office," Michel told me. "I didn't



Students discuss career possibilities with Bernard Poliquin of Dupont.



Alfa Laval's Michel Viau liked the idea of Career Day and would have appreciated something similar when he was at Mac.

get the job when I first applied, but they called me later and requested an interview and I was hired the week after."

When he first got the letter about Career Day, Michel said "Yes," because he liked the idea. "I wouldn't have minded having something similar when I was here, because when I graduated I had an idea of what I wanted, but I didn't know all the different companies and different agricultural areas where I could get a job."

Some company reps were on their own, others worked in pairs, and several brought along samples of their products, literature, and other display material. One of the companies, Pfizer, was not only attractively set up but they also had a good team of people present to discuss career opportunities with the students. Leading the team was a Macdonald graduate of 1964, D. Robert Hyndman. He hadn't been back on the campus for a while

though he had expected to be at his class reunion last fall. "I was in charge of the 20th year and got everything organized, then got the flu the day before and couldn't come. As my wife is also a Mac grad — Teacher's — we were both sorry to miss Reunion."

He did come more frequently quite a number of years ago and has good memories of "Sunshine Hour" when some of the graduate students and some of the professors would enjoy a social time with industry people and talk would be about Macdonald, research, and new developments in industry. "We met on the top floor of the poultry building in the back lecture room, and it was an ideal time as it brought industry people and university people together to talk over mutual areas of interest."

Robert Hyndman joined Pfizer in 1964 and is in the head office in Kirkland, Quebec, near the college. "I've



Robert Hyndman, talking with students Alain Brodeur and Anne Delmas, is Director of Sales and Marketing for ROGAR STB, the veterinary division of Pfizer.



Glen Ikin of Kraft poses for the camera with Martine Fortier, a student, and Professor Ed Idziak of the Department of Microbiology.

had many jobs with Pfizer," he said. "I've moved through their organization and right now I'm running their veterinary business which is ROGAR STB. Agriculturally Pfizer is such a large business that they have broken it up into three sections: the crop protection division, the veterinary division, and the feed division. I used to be marketing manager for two of them, but they got so large that we ended up splitting them in two and one fellow took one half and I took the other.

"It has gone really well for me. When I graduated I said that the last thing I wanted to be was a salesman. However, I tried working as a sales rep for Pfizer. With accounts all across Canada, I spent five years travelling. Now that I am a director, I find that I have a little more time to devote to promotion and having a chance to go out and talk to students."

Robert Hyndman noted two distinct changes over the years: one positive

and one negative. "I find fault not only here but in other universities that I visit and that is that there is something wrong with the math system. As a sales representative you have got to know how to add up an order. How to know that if a customer buys this much, he gets such a price; if he buys so much more, he gets such and such a discount. At such times they can't be sitting around working on calculators. We are seriously thinking of building a small exam in maths into our recruiting system. I'm talking about simple math, not the difficult problems that really need a calculator.

"On the positive side, one of the biggest changes in our business is that we are hiring more and more girls as sales representatives, especially in our veterinary business. I've just hired Elaine (Sheppard) Ribeck who is a 1981 grad from here. Elaine has gone through our training program. We have quite an intensive course to get staff

prepared for territory planning — getting them to feel comfortable before they go roaring out knocking on veterinarian's doors — so Elaine is just getting into high gear now. She is going to be a welcome addition. Elaine's brother works for our Crop Protection division out of London. She also knew Mike Amos, another Mac Graduate ('80) who was one of my product managers. Mike was a sales rep in eastern Ontario, and I brought him in as a product manager. He's now transferred back to Toronto as regional manager, and Elaine is working for him." This points out again that the agricultural community is a small community.

"What I always look for in students when we are standing around a booth like this," Robert pointed out, "are the ones that walk up to you. If you are going to find people who can sell products, you can't have the shy ones. I'm afraid we don't have time for shy people and if we can't beat the shyness out of them, then maybe they would be better off in research, for instance. There are systems that we use to make people feel comfortable in communicating but the very shy and the complete extrovert are not for us. Fortunately, it's a bell curve and the majority of us are in the middle."

Still in the Pfizer area, I joined two Diploma students Don Garfat and Peter MacKinnon who found a Dip '79 grad Greg Haney to talk with. Greg is in Pfizer's Crop Protection division and is working out of Moncton, N.B. He's responsible for sales in the Maritimes and says he enjoys his job immensely.

Did he try and talk Don and Peter into going into sales? Not at all. "If they have farms to go back to, it would be better for them to stay right there. My original goal," Greg told the students, "was to go back to the farm and it's still a goal. I'm from Vaudreuil Soulanges but my dad's not farming now so I wasn't one of the fortunate ones, and I don't think I would like to farm part time. But if they want to have some supplemental income, a good way to earn it is in sales and people selling agricultural products are looking for good people to work for them. There is always a place for someone, especially with a lot of practical experience."

Peter MacKinnon wondered what Greg thought the general policy was in hiring diploma students. One company

rep told Peter that it doesn't really matter if you have a degree or a diploma, it's how you sell yourself; another bank representative strongly suggested that a degree was preferable in nearly all cases.

Greg explained, "Let's say there is a position for a sales territory in eastern Ontario. It is posted as requiring practical farm experience — dip or degree — and previous sales experience would be an asset. Flexible and highly motivated. A person comes in and if he thinks he has those basic qualifications, we'll set up an interview. We compare the person with other degrees and other dips. Companies are looking for people with experience to go out and get the job done; it doesn't matter so much about qualifications. Naturally the more qualifications you have the better it will be in the long run. If I had the time, I would probably go back and do a BSc just to get a little more technical knowledge, but right now in my career it doesn't matter. Go to a farmer who has a problem with quack grass in his corn. He doesn't want to hear how a certain chemical reacts with the quack grass; what he wants to hear is how much it is going to cost and what type of job it will do. You draw on your experience and you say if you put on this rate and so on, you'll get it done. If you sound assertive and go back and follow it up in the fall to see if your product has done it's job, you've done yours. In the technical end of the business, however, degree people or those with a Master's are preferred. If we are going to produce and test chemicals we'll need technical people to go to sales courses and explain why these chemicals will work for the farmers."

In answer to my query on Career Day Greg said, "I wish we had had it when I was here. It is something that should have been done many years ago, but I'm glad it's starting today."

Don and Peter also agreed as did Alex Milne who told me that he, too, was going back to the farm but felt is important to get to know people in the agribusiness area.

Greg introduced me to two other Pfizer colleagues: Pat Empsall, who has done a great deal of recruiting for Pfizer, and Mathew Gans, an '84 degree graduate. Pat told me that Mathew had been quite persistent in trying for a position with Pfizer and



Look out! It's a meeting of Dips! Don Garfat and Peter MacKinnon enjoyed questioning Greg Haney of Pfizer.



Two more of the Pfizer team, Pat Empsall and Mathew Gans, join Grey Haney and Alain Brodeur. Pat said she is very impressed with agricultural students and enjoys interviewing them for positions with Pfizer.



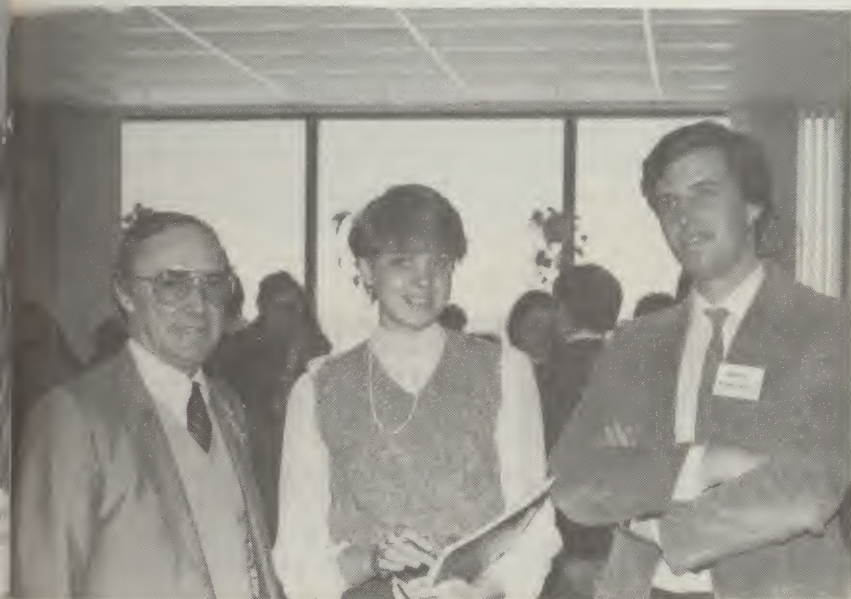
Mick Zidle, representing an ecology resources group, catches up on news from Dow Chemicals with Robert Caron. Photo by Charles Fournier.



Benoit Brunelle of Imperial Bank and Gilbert Pauzé of Pillsbury ready to answer questions.



Louise Auger Després is delighted with her Dupont position and finds her agricultural degree and farm background real pluses in her career.



Anne Delmas talks with Upjohn's Rene Roy and Richard Hart.

Finally they decided to see him. "And that was it," she said. "We knew he would fit in with our company." Mathew is also in the Crop Protection division and works as a district manager in eastern Ontario. His office is in Alexandria.

Pat thought the idea of Career Day was an excellent one and also liked the casual approach. "People are at liberty to come in and talk with us," Pat said. "I may be prejudiced but I think agricultural students are great. If I had to do it all over again, I'd probably go into agriculture. When I come here or go to Guelph I really get wrapped up in their point of view. I'd interview agricultural students any day," she continued, "as a group they're very hard working and that's been proven in their careers in our company. Our Director of Sales in

London is a Mac grad. He started with us as a commission agent about 12 or 13 years ago and is now second from the top."

"If I were a student today and had this opportunity to have all the companies here I'd think it was fantastic," said another Dupont Canada employee that I talked with — a 1980 Mac graduate Louise Auger Després who had been with the company for a year in their Montreal office. Like all the others that I had spoken with, she was enjoying her job. "I'm a sales rep for chemicals — pesticides. We sell to distributors and then to dealers and then to farmers. I worked for crop insurance first, then for a distributor for Pfizer (which I got through the Student Placement Office) and, since I had some experience in sales, Dupont offered

me a job. I have the whole province and eastern Ontario as well and am on the road all the time.

Louise told me that there was no problem being a female. "The most important thing is to have farm experience, which I have as my parents had a dairy farm in Three Rivers. When you talk with farmers it is very important that you understand them and they understand you. That opens a lot of doors."

Career Day can't help but have opened doors for our students. I honestly don't know if any permanent positions resulted from the event but Agriculture Canada had representatives here and Anne Delmas told me that she had been hired by them for the summer. Anne says that she is considering doing a Master's in Business Administration once she has her BSc. "I'm becoming very fond of the production area of the food industry." Last summer she was employed by a company that made all the bread and rolls for McDonald's in Ontario. "It was the first time since I have been at university that I felt I was applying something of what I learned, and I think it was also beneficial for them." She got the job with Agriculture Canada because of her previous experience. Last year Anne was President of Laird Hall, the students' residence. This coming year she will be Internal Vice-President of Students' Council.

Suzan Smith's summer job kept her right here on campus working in the Department of Animal Science as a research assistant, and she hopes to work on a Master's in Animal Science when she graduates. Sue is no stranger to responsibility: she was President of the Quebec Young Farmers' Federation in 1984 and is the only Youth Delegate to the CBC's Advisory Committee on Agriculture and Food Programming.

With credentials like these there is no wonder that the first annual Career Day was an overwhelming success, and with the same two at the helm we expect September 26 to be even bigger and better.

If you or a representative of your company would like to attend, please telephone 514-457-5784 and leave a message for Anne or Sue at the Centennial Centre. They will get back to you.

LARGE ANIMAL RESEARCH UNIT

New Extension Completed

by Dr. Claire McFarlane
Demonstrator
Department of Animal Science

The aims and objectives of the McGill Advancement Program as they relate to Macdonald College were described in an article in the Macdonald Journal in February, 1984, by Dean Roger Buckland, who was at that time Chairman of the Department of Animal Science. Amongst other things, the money raised is to be used to rebuild and renovate the Macdonald Farm buildings. The first stage of this project has now been completed, and the new extension of the Large Animal Research Unit (LARU) is now open for business. Probably even those of you who know the college well would have difficulty answering any questions about LARU in a game of Trivial Pursuit. It is located to the west of the main farm buildings, adjacent to the piggery and, unfortunately (but for a number of very good reasons), is not open to the public. This facility is used for research in the areas of nutrition and reproductive physiology of the domestic animal species — the sort of experiments which are difficult to carry out in our regular cattle and swine facilities. LARU was originally built as a sheep barn in 1968 but, after the entire Macdonald flock got scrapie and had to be destroyed, it was converted to the Embryo Unit in 1975, under the direction of Dr. R.D. Baker, who was a pioneer in the field of embryo transfer in Canada. It was in this building that Bob Baker and his co-workers carried out the first transfer of a frozen embryo, resulting in the birth of the calf, "Popsicle," in 1976. The Unit included animal pens, an animal prep room (where the animals were prepared for surgery), a surgery, a post-surgical recovery area, laboratories and offices. After Bob Baker left to set up his own commercial embryo transfer business, the work continued and expanded into other areas. In 1980 four light-control rooms were added; these have been used by Dr. Lee Sanford to study seasonal changes in the reproductive physiology and behaviour of rams. By adjusting the lighting con-



Dr. McFarlane points out that the indoor-outdoor pens may be adjusted to any required size and are a welcome addition to the Large Animal Research Unit.

trols, the rams can enjoy long midsummer days in mid-winter, or January; without the snow, in June.

The Unit is always a busy place. On any one day there may be a team of researchers carrying out surgery on a group of six pigs, recovering oocytes or embryos as part of a study of embryo manipulation in pigs (which is still at the experimental stage). Other research workers may be collecting blood samples from a group of 20 rams every 20 minutes for a six or eight hour period (what, no lunch break?) in order to follow changes in hormone levels in the blood over this time period. In another room there may be a group of sheep in metabolism cages; these cages allow the scientist to evaluate feed or monitor the condition of the animal by measuring total input and (yes) output. There may also be a group of calves on a feeding trial. And there are the long-term residents, two steers who have been fitted with a rumen fistula, which is a capped entry port into the rumen allowing for the removal of samples of rumen fluid on demand. Technicians Grant Rogers and Jose Carreno are in charge of this three ring circus.

With so much activity, involving many projects and animals, the facili-

ties of LARU have indeed been crowded; the new extension, completed this spring at a total cost of \$72,000, will be a welcome addition. The extension, with an area of 60 by 30 feet, can be fenced off into pens of the required size using eight foot sections of steel tube fencing. This arrangement gives flexibility in housing animals and allows for ease in cleaning the pens since all the partitions can be removed. Four garage doors along one side of the extension open onto a paved area behind the building; this also can be fenced off, giving the animals access to outdoor pens. The first occupants of the new extension, 65 sheep, moved in this spring and seem to enjoy their new quarters. The pens can also be used to house calves on a feed trial or similar experiment.

For the researchers who use the facilities of LARU and the personnel involved in the day to day care of the animals there is agreement that the new extension will be a useful and welcome addition. We thank all the generous donors who have supported the McGill Advancement Program and look forward to following the next stages in the building and renovation program at the Macdonald Farm.

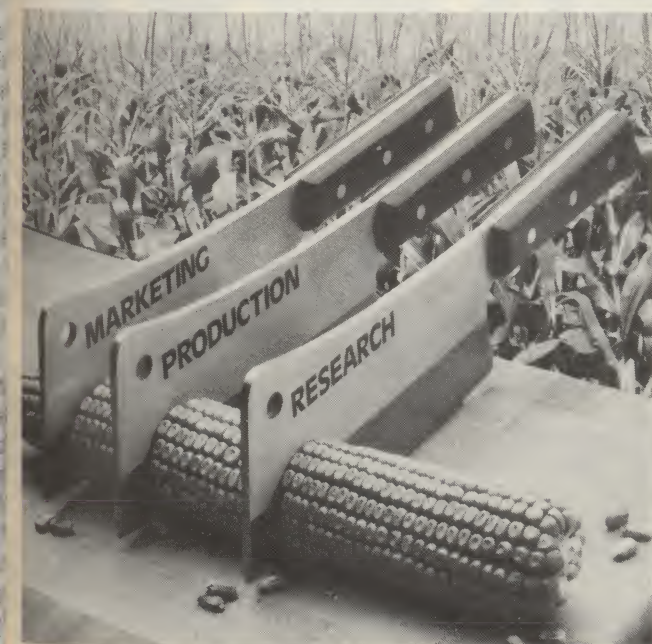


In a recent experiment involving 20 rams technician Grant Rogers takes a blood sample with the aid of summer student Susan Vermier.



Dr. Bruce Downey, veterinarian, performing surgery on a pig in the surgery located in the main part of the unit.

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The role of nutrition in attaining maximum milk production potential from replacement heifers

Part III Heifer nutrition and growth

by Professor Elliot Block
Department of Animal Science

From the recommendations in the previous articles you can see that dairy heifers may be successfully raised by a wide variety of methods. Systems for feeding dairy heifers will affect rate of growth in different ways. Calves fed limited milk and weaned at four weeks gain little weight, while calves nursing dams will grow fast and fatten early. Many different combinations from high grains to high roughage feeding programs can be used (under proper circumstances and management) to produce many different growth rates and excellent heifers. Therefore, any system accomplishing this can be considered "normal," and there are no absolute normal growth curves for heifers, only guidelines.

Our goal is to bring heifers into the milking herd with a minimum of expense and allowing for full development of their inherited lactation potential. How to achieve this goal has been the subject of Canadian, United States, and European research for the last 50 years. The following principles have been obtained from this research:

1. Heifers can be grown too fast diminishing their lactating ability;
2. Heifers can calve too young causing calving difficulty and calf and dam mortality;
3. Heifers can be grown too slowly resulting in late breeding ages and failure to produce milk up to their potential;
4. Heifers can calve too late, freshening at the wrong time of year and upsetting the economic management of the herd;
5. Heifers grown economically at a moderate rate can produce milk up to their potential at 24 months — the same as those heifers grown by expensive concentrate feeding (keep in mind that a heifer's maximum milk potential is less than when she is mature).

Not too long ago recommendations for growing heifers were based on liberal milk feeding to calves and heavy concentrate feeding for the first 15

months. Today most farms use waste milk, colostrum and limited milk replacer to get the calf started, wean early at two to six weeks, and feed limited amounts of concentrates (1-2 kg daily) for six to nine months, plus all the roughage the heifer will consume. These calves are slightly undersized when compared to the older standards and feeding programs.

Dairymen question if this newer treatment of moderate feeding and growth will hurt the heifer's future performance. Although some feed marketing agencies will answer "yes" to this question, the valid research results show the answer to be **No**; heifers that get off to a slow start will not show any effect on milking performance considering other management factors are accounted for.

Two research trials conducted in Europe illustrate the above point. The largest study was conducted in Denmark using 445 heifers over a 12-year period. Three rates of feeding were tested: 1) liberal milk, concentrates, and forage; 2) limited milk, concentrates, and forage; 3) limited milk and only roughage feeds. The third group grew at a slower rate but as the heifers developed a capacity to utilize roughages they caught up to the growth rate of faster grown heifers. This group was slightly undersized at first calving but equalled the other groups in lactation ability.

The second experiment was conducted in Sweden using 32 pairs of identical twin heifers. One twin was raised at a "normal" feeding rate, while the other was raised below (60 per cent) or above (120 per cent) this "normal" rate. In the last four months of gestation the level of feeding was increased for the sub-normally fed heifers and decreased for the overfed heifers so they would all calve in similar conditions. The results were that the undersized heifers milked more than their normal mates, while the overfed heifers milked poorly. The conclusion was that slowly grown heifers would be the best milkers.

Without realizing the effects of their

treatments this Swedish group actually stumbled upon an important finding that has been proven in North America in 10 other studies. The effect of higher milk production by the slightly underfed heifers was due to a combination of two treatments: 1) moderate underfeeding during growth; 2) **extra feed for heifers that were grown slowly before calving**. This second factor is known as "prepartum stimulation of heifers."

Can a slowly grown heifer be large enough to calve at 24 months? Research results say "yes!!" Fat heifers and cows have more calving difficulties than those in moderate condition. Theoretically, the size of the calf is determined more by size of the dam in early gestation than at calving time, and calving difficulties in heifers are directly related to calf size. Therefore, heifers grown slowly until after conception have smaller calves, even if fed well in late gestation. However, if heifers are too small at calving, they will have as many calving difficulties as those that are fat. The ideal situation is to start with heifers that are lighter at conception and bring them up to a good size (but **not** fat) at calving.

Another advantage of lean heifers is that these heifers eat more feed than fat heifers of the same age in early lactation. Feed intake is regulated by the amount of growing a heifer has to do rather than the amount she has grown. High milk production also stimulates feed intake and, since undersized heifers can milk as well as larger ones of the same age, they will eat the feed required.

Other advantages of the slower early growth rate are improved reproductive efficiency and longer productive life expectancy. The reduced herd life of rapidly grown heifers is usually linked to more reproductive failure and earlier appearance of aging problems such as metabolic disorders and foot and joint functions.

In the experiment from Sweden previously cited the slower grown

heifers remained in the herd 20 months longer than the rapidly grown heifers. The Denmark experiment showed that the heifers that were rapidly grown had a 12 per cent higher culling rate than slowly grown heifers. The higher culling was due to reproductive failure.

Many experiments have shown that fat heifers do not develop normal mammary glands and produce less milk than glands from slowly grown heifers. This defect in fat heifer's mammary development is a failure of milk

secretory tissue to develop due to the presence of fat pads in the udder. The most critical period of mammary development of heifers is from three to nine months of age when the udder is growing 2.5 to three times faster than the heifer's body. This defect cannot be detected visually or by palpation but shows up as a decreased lactation ability. The most heavily fattened heifers never recover from this defect and continue to produce below their potential for up to four or five lactations and, as they get older, will have

smaller udders than normal.

You must remember that first calf heifers must be fed adequately early in lactation. Heifers underfed in lactation will have lower milk yields, which may result in unjust culling and because of poor condition in early lactation may delay conception.

Summary

Both extreme over- and under-feeding will give poor results. Continuously overfeeding dairy heifers so they are fat from preconception to post-calving results in abnormal mammary development and a reduced milk production potential.

Heavy feeding of young dairy heifers to achieve early breeding is not necessary because puberty occurs at about 40 per cent of mature body weight, which can be reached by 12-13 months with a moderate daily gain. Heifers that calve before 23 months of age usually have a high incidence of metabolic disorders because they have been grown too rapidly and are fat and have a high degree of calving difficulties, high calf losses, and losses due to poor health.

Calving at 24 months is a reasonable goal that can be attained on low-priced feeds with moderate growth. This slower growth should continue through the first half of gestation in an attempt to avoid oversized calves. A slightly higher intensity of feeding should be done prepartum to healthy heifers in below-normal body condition to help them attain a respectable milk production in lactation.

Feeding and breeding recommendations for the modern dairy herd should be broadened from present standards. A dairyman must define a heifer raising system that suits the individual farm management system and feeds. To achieve this the producer must know the desired ages and weights for breeding and calving to fit into the overall farm plan. Feeding systems tailored to these needs can then be applied.

To raise a heifer with a genetic potential for high milk production takes the same feeds, care, close observation, and loving care as any other heifer. To put some (or all) of the recommended practices into an operational heifer replacement system will serve to increase the efficiency of milk production for the entire herd.

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The Role of Aquaculture in Feeding the World

Part II

by J.S. Slinger
Professor Emeritus
Department of Nutrition
University of Guelph

Advantages of Aquaculture Over Traditional Fishing

Several reports have alluded to the importance of aquaculture and have pointed out the advantages of controlled production over capture fishery.^(1,3,7,9,10,14) A number of these advantages, as well as some others, are of interest in view of the static state of ocean production in a world continuing to grow at a rapid rate.

Unlike traditional ocean fishing, aquaculture allows greater control of the quantity of fish and shellfish, enabling production to contract or expand depending upon the market. Where spawning cycles can be controlled aquaculture provides flexibility in the time of marketing, thus eliminating some of the seasonality of product availability.

Aquaculture products also may be of superior quality. Cultured oysters, for example, while identical in taste to those harvested, have a distinct advantage in that they can be free of fouling organisms, making them superior for eating raw, in particular. Also controlling the organo chlorines and other toxicants in the feed leads to safer products than some of the wild production of high order predators such as salmon and tuna.

Further advancements in quality and yields are bound to occur with further research in genetics and selective breeding, nutrition, disease control, and management. Specific research in these areas is being conducted to develop fish strains and management and feeding conditions specific to particular environments. There is no reason to assume that gains in productivity and economics of the same magnitude as have occurred in animal and crop agriculture will not also be forthcoming in aquaculture if sufficient resources are applied to research and development. For example, recent research has shown that using liquid



Just prior to giving the Crampton Lecture, Dr. J.S. Slinger, centre, posed with Drs. S.P. Touchburn and R.B. Buckland of Animal Science.

oxygen to supersaturate the water with oxygen will permit about a 2.5 fold increase in the productive capacity of the water for raising rainbow trout. This, coupled with the use of settling ponds, biological filters and other simple methods of removing wastes from the water, will permit a further marked increased efficiency in the potential for recirculation of water and lowered production costs.

While comparisons of production costs between farmed fish as compared with poultry, red meat, milk, and eggs are of interest, it should be borne in mind that relatively little research has been conducted to improve fish production efficiency whereas thousands of scientists have been engaged in improving efficiency of agricultural animals for the past 40 or more years at a cost of many millions of dollars. In addition to the standard procedures which have been applied to improving domestic animals we now have available the recombinant DNA techniques whereby it may be possible to transfer growth hormones or other genes from one species to another, resulting in new rapid growing or otherwise altered strains to reduce production costs or otherwise satisfy market needs. Cloning to produce better tasting and cheaper salmon has already been accomplished in Japan.⁽¹⁵⁾ A major problem to be solved for many farmed species of fish is the control of sexual

development and reproduction in captivity. This problem is being overcome in many species by injection with gonadotropic hormones resulting in earlier sexual maturity and production of viable eggs; in other species adjustments in ambient temperature and photoperiod, which vary with season and latitude, have permitted completion of reproductive cycles in captivity.⁽¹⁶⁾ Disease prevention and control is another major problem in farmed fish. Effective vaccines are now available to prevent a number of diseases but much more still needs to be done.

Aquaculture projects can be and are being established in many countries throughout the world using the warm water waste heat from electric generating stations whether based upon coal, oil, gas, or atomic fuel. The CANDU reactor developed in Canada for electric power generation uses uranium as the fuel and only about 30 per cent of the fission energy produced is recovered as electrical energy with most of the remainder being converted to heat. The heated water from such power stations offers a tremendously important resource, which some day will have to be used for aquaculture or some other profitable purpose. We cannot afford to let such an important resource continue to go to waste.

Aquaculture plays a necessary role in maintaining and enhancing wild aquatic stocks and thereby adding it

very important way to the improvement of capture fisheries, both commercial and recreational. In Canada, for example, our Pacific and Atlantic salmon stocks are highly dependent on hatchery rearing and release of sufficient smolts. Both Pacific and Atlantic salmon stocks have been seriously depleted by commercial overfishing and by destruction of the natural spawning rivers by pollutants from forest and other crop sprays, pulp and paper company wastes and, for the past several years, by serious losses of rivers by acid rain from industries in Ontario and in the United States. Many rivers and lakes in Ontario and Quebec have also been depleted of stocks of game fish so that it becomes more and more difficult to provide the restocking numbers necessary to satisfy both commercial fishermen and anglers. Tourism in Canada is one of our most important industries and the provision of good angling resources is vital to its continued success.

Aquaculture can be integrated with agriculture and animal husbandry with mutual advantages to both, and in this way can contribute substantially to integrated rural development. While there are some 100 licenced fish farms in Ontario, only about one-quarter of these are commercially viable fish farming entities with the remainder being farm pond enterprises making up an important if not the major source of income on mixed farms. While a number of the larger farms produce 100,000 to 400,000 pounds of fish per annum, there are a large number producing in the range of 5,000 to 10,000 pounds. Quebec has the largest number of fish farms of any province in Canada, with some 380, but many are small. There is a greater demand by anglers for "put and take" type fishing which is very popular in Quebec. British Columbia is second to Quebec with about 125 farms with several being relatively large mariculture cage projects producing pan-sized salmon. Other fish farms in Canada are found in the Maritimes (40), the Prairie provinces (15), and Newfoundland (1). There are also about 5,000 licences issued for pothole lake aquaculture on the Prairies, but almost all are for private recreational purposes according to Anderson and Levi-Lloyd.⁽⁷⁾

Aquaculture is an important source of bait fish for recreational and commercial fishing as well as for ornamen-

tal fish. These activities have spin-offs amounting to many millions of dollars in several countries.

Aquaculture provides intellectual challenge to professionals of many disciplines and a rewarding activity for farmers and other workers at many levels of skill and education. The University of Guelph is a centre of considerable research and teaching activity in the field of fisheries science and technology. The "Group For The Advancement of Fish Studies" was formed to integrate the multidisciplinary activities present on the Guelph campus and includes some 14 scientists from several departments and disciplines.

Aquaculture in Developing Countries

Because of their warmer water temperatures and the species of fish which are indigenous to the developing countries, these countries have a very great advantage in the economical production of aquatic animals and plants as compared with the northern hemisphere.⁽¹⁷⁾ This is extremely fortunate since animal agriculture in developing countries is not blessed by these advantages, and thus aquaculture provides their most important source of animal protein.

Rainbow trout and channel catfish are high order predators which in the wild are extremely wasteful of the water's resources, as are salmon for example, in the ocean.

A coastal ocean food chain may be represented as follows:

Phytoplankton	→	Zooplankton	→
Primary carnivores	→	High order carnivore	
(filtering fish)		(predator fish)	

The phytoplankton are produced by solar energy reacting with carbon dioxide and mineral elements by the process of photosynthesis. There is approximately a 90 per cent loss of energy with each trophic level of the chain so that high order predators are generally inefficient. Chain length varies depending on nutrient concentration from 1.5 steps in upwelling areas to 3.5 steps in coastal waters, and five steps in the open ocean.⁽³⁾

In aquaculture, such fish must be fed diets which often represent 40-50 per cent of the total cost of production. On the other hand, species which are

economical sources of protein for developing countries are those which are fairly popular as food, low on the food chain, hardy, easy to culture, and fast growing. It also helps to have species with a high tolerance to water temperature and salinity, and where the complete life cycle can be carried out in captivity. Such species as carp, tilapia, milkfish, mullet, and mussels are examples of ones that should receive the greatest aquacultural effort and attention if aquaculture is going to make its most important contribution to efficient protein production in the Third World.⁽¹⁷⁾

Not surprisingly, there is a good deal of profit-motivated fish farming practiced in Third World countries, even though the product produced is out of the economic reach of most of the population. For example, aquacultural production of species such as shrimp, prawns, eel, channel catfish, salmon, and yellow tail are not among the cheapest sources of animal protein since their production normally requires feeding of prepared foods and involves higher labour and capital costs thus resulting in products suitable only for the rich of the country or the export market.

In Third World countries feeding fish to fish or even grain to fish is in direct competition with humans for food. Trash fish and fish entrails are often used as a source of fish food in rich countries and converts a lower quality product to one of higher value. However, trash fish are not produced in significant quantities in fish-loving countries short of food. For example, in the Philippines and most other poor, South East Asian countries the people eat almost every species of fish, including fins, heads, and most of the entrails, so there are essentially no fish wastes.

Biological feeding systems for fish involve the use of natural foods. They provide an economical means of growing fish, especially at the subsistence level. On a small scale fertilization may not be necessary but if the fish rearing enterprise can be combined with a poultry or pig operation so that the manure and waste feed and water flow into the pond, productivity is usually increased in a cost-effective manner. Many South East Asian farms combine poultry or pigs with a garden operation and a fish pond. A macrophyte grazer such as the white amur eats not only

water plants but can also be fed guinea grass, vegetable wastes, manioc, and many other land plants. Much of what is fed is undigested and passes through the gut. Monoculture of white amur is therefore inefficient and wasteful. However, the excreta from the white amur stimulates invertebrates to grow which are then consumed by typical carnivores such as catfishes or basses.⁽¹⁷⁾

Polyculture greatly increases the efficiency of utilization of natural foods in carp production. In Malaysia, for example, it is typical to have three kinds of carp in a pond and in this way fish with different feeding habits live in symbiotic relationship with one another to give maximum yields. While such operations are usually relatively small and labour intensive, they require little capital expenditure and provide employment and food for a large number of people. The plankton feeding milkfish is a very important culture species in the Pacific Islands of the Philippines, Taiwan, and Indonesia. Yields are increased several fold by fertilization of ponds or use of sewage which increases yields of diatoms, blue-greens, and filamentous algae in combination with bacteria and protozoa.

Mullet is extensively reared in brackish water ponds and lagoons in Israel and the U.S.S.R. In West Bengal — India, mullet is produced in rice paddy fields in mixed farming operations. In these circumstances young plankton and surface algae abound. For adults epiphytic algae, decaying organic matter and small crustaceans are plentiful.

An extension of the biological feeding system for fish production is the use of sewage to grow marine algae and then to produce useful marine food organisms. The studies of Ryther and co-workers at Woods Hole indicate that treated secondary sewage treatment plant effluents are a good and complete fertilizer for algae which form the base of the marine food chain. The algae were successfully fed as a food to marine bivalve mollusca (oysters, clams, and mussels). There was no adverse effect on the growth of the bivalves from sewage. Sewage treatment-aquaculture systems can be made to remove sewage nutrients effectively and to produce rapid growth of useful marine organisms.

The Bavaria Power Company, which owns 200 acres of sewage fish ponds

near Munich, Germany, produces 500 kg of carp per acre per year, a very profitable venture. Munich disposes of most of its sewage in this manner. The city of Tainan, the third largest city in Taiwan, disposes of most of its sewage into milkfish ponds. It has been found that the self-purification of sewage in fish ponds is more effective than in streams. Rather than considering sewage as a troublesome waste product of society, leading to degradation of the aquatic environment and eutrophication, countries with a semi-tropical or tropical climate can use this waste to good advantage in the production of fish and at the same time clean up the water more effectively than by engineering methods.⁽¹⁸⁾

Nutritional Value of Fish

Some two-thirds of the world's population survives essentially on a cereal based diet, usually a single cereal wheat, rice, maize, or sorghum depending on what grows best. In many cases the cereal portion of the diet represents by far the major part of the diet or it is perhaps supplemented by vegetables which may include a protein-rich legume.

In such cases the level of protein is usually inadequate and/or the diet is first limiting in the amino acid lysine and/or methionine. Supplementing the diet with fish is the best way to correct this protein or amino acid deficiency. While aquatic foods supply only about two per cent of the caloric requirements of the world's population, they represent about 15 per cent of the world's supply of animal protein. This fish protein is much more important in the developing countries than in the western world and is essential to the survival and well being of over three billion of the world's 4.6 billion people. At particular risk are the .35 billion surviving largely on cassava and other root crops who often suffer from severe protein malnutrition.

In most poor countries fish is the main source of animal protein. For example, 13 African countries (including some of the land-locked areas) get more than half their protein from fish. If countries are ranked by reliance on animal protein derived from fish, 39 of the first 40 places go to developing countries.⁽¹⁾ The big fish eating rich country is Japan, the world's largest fish importer as well as the world's lar-

gest fishing nation with an annual per capita fish consumption of more than 40 kg in contrast to the global average of less than 12 kg. Fish is not only an excellent source of protein but is also a good source of calcium, phosphorus, magnesium, iodine, fluorine, zinc, and many other trace mineral elements, as well as vitamins, which are critical in the diets of people in the less developed countries, in particular.

Importance of Fish Lipids

Fish consumption is on the increase in the western world mainly as a substitute for red meat since evidence has shown that fish fat is high in polyunsaturated fatty acids (PUFA's) in contrast to the mainly saturated fatty acids in red meat. Poultry meat is often equated with fish in recommendations for replacement of red meat, but while poultry is lower in saturated fatty acids and higher in PUFA's than red meat, it does not contain the same PUFA's that appear to be involved in making fish the important dietary component that it is. Nor are the high PUFA's in vegetable oils a substitute for fish oils, even though fish oils contain more saturated fatty acids than do vegetable oils.

A good deal of interest has recently been focused on the low incidence of ischaemic heart disease in Eskimos living in the Umanak district of Greenland. The Eskimo diet of fish and other marine animals is rich in long-chain PUFA's mainly of the linolenic acid (w3) family. A low incidence of ischaemic heart disease has also been reported in coastal-dwelling Turks consuming large quantities of fish compared with town dwellers on a mixed diet. Eicosapentaenoic acid (EPA, 20:5 w3) is present in large quantities in the diet of fish-eating populations but is present in only small quantities in the westernized diet. Eskimos have lower serum triglyceride, cholesterol and increased high density lipoprotein (HDL cholesterol) levels than Danes taking a western type diet. They also have longer bleeding times. A number of studies have shown that the incorporation of fish oils into the diet lowers serum lipid levels in human subjects and animals. When EPA partially replaces arachidonic acid (20:4 w6) within the platelet membrane it is metabolized to thromboxane A₃ which is a much less effective pro-aggregator



A series of plastic lined ponds on an Ontario trout farm. This farm uses a mixture of well water and water from a stream.

of platelets, making it less likely that blood clots will form at the site of atherosclerotic plaque formation⁽¹⁹⁻²⁹⁾

In a recent study, Saynor et al.⁽¹⁹⁾ determined the effect of a fish lipid concentrate rich in eicosapentaenoic acid, using 107 subjects for periods up to two years. Ninety-two had heart disease or hyperlipidaemia and 15 had no history of heart disease.

The results showed that serum triglyceride levels were rapidly reduced, cholesterol fell more slowly but high density lipoprotein (HDL) cholesterol was increased. Bleeding time was increased significantly and the consumption of glyceryl trinitrate tablets decreased together with a reduction in anginal attacks. The data were consistent with a reduction in triglyceride synthesis. Total and HDL cholesterol changes are suggestive of an enhanced removal of cholesterol from tissues. Increased bleeding time and change in GTN consumption are consistent with decreased platelet aggregation.

Epidemiological studies on a number of Japanese communities indicate an association of high salt intake (mainly from their potable water supplies) and hypertension. However, these people have had a lower incidence of heart attacks than would be expected with their sustained high blood pressure. Japanese, in general,

have lower serum triglyceride and cholesterol and a lower incidence of heart attacks than westerners. Recent experiments are showing that EPA may have a much broader role than helping to maintain the health of the heart, blood vessels, and blood platelets; some evidence suggests roles in preventing arthritis, certain cancers, alleviating allergies, and in enhancing immunity to disease.

Concentrates of EPA are now available on the market in gelatin capsules. However, a more logical way to obtain the factor is to consume more fish. Fatty fish include herring, sardines, mackerel, salmon, trout, sable, whitefish, tuna, shad, butterfish, pompano, and mullet. Oils from pilchard and anchovies are quite high in EPA. Highest EPA levels in canned fish are present in those packed in their own oil and juices. The late Dr. Averly Nelson, a Seattle, Washington, heart specialist discovered strong evidence, after a 19-year study, that eating fish markedly reduces mortality from heart attacks.⁽³⁰⁾ He recommended eating fatty fish as the main course three times a week. Lands⁽³¹⁾ stated, "the polyunsaturated fatty acids of the marine food chain are able to reduce not only the hyperlipidemia and atherosclerosis, but they can also reduce the imbalanced conversion of arachidonate into powerful local hor-

mones that cause heart attacks and pain. It is this latter, recently discovered role that makes us examine more carefully the dietary balance of our food from the grains and cereals of the land compared to foods from the fish of the seas." He further noted, "It is quite apparent that the diets of most North Americans are rich in w6 fatty acids relative to the w3 fatty acids. It is quite apparent that our experimental models were greatly influenced by shifts in these ratios. Because the w6 acids mediate heart attacks, strokes, and chronic inflammation which create appreciable distress in European and American populations, it seems appropriate to design further studies that examine the wisdom of dietary intakes of polyunsaturated acids that are very high in w6 and relatively low in w3."

This work on the use of fish, fish oil, or EPA would appear to have significant implications for human health in the western world in particular. It is also of interest to westerners to know that what was once thought to be cholesterol in fish products such as lobsters, clams, crabs, and oysters was not cholesterol at all but actually a plant sterol, so that one can now consume these delicacies and know they are comparable in cholesterol to chicken, lean beef, or fin fish in an equivalent serving.⁽³¹⁾ It is of interest to speculate whether recommendations for the reduction in red meat, eggs, and dairy products consumption are necessary if intakes of fish or EPA supplements were increased and consumption of vegetable oils decreased.

However, before consuming large quantities of fish oil to prevent all our ills, certain possible negative effects of this procedure should be recognized. In the first place many fish oils have been fortified with vitamins A and D, too much of which are known to be toxic. Also, malonaldehyde can be produced in the body from the highly polyunsaturated fatty acids of fish oils and this compound can be carcinogenic^(33,34). More work is necessary before specific recommendations can be made regarding EPA supplements.

Part I was published in the May 1985 issue of the Macdonald Journal. A list of references is available on request to Hazel M. Clarke, Editor, Macdonald Journal.)

The Current Status of Beekeeping in Canada

by Professor V.R. Vickery
Department of Entomology

For many years beekeeping in Canada has followed a very set pattern with each year, except for climatic variations, being a near copy of the year before. This has changed rather abruptly but, before discussing the changes, it is necessary to review certain aspects of past practices, namely, wintering of honey bees and incidents in other parts of the world which have had a profound effect upon beekeeping in Canada.

Some eastern Canadian beekeepers have practiced wintering of their colonies for many years. Some wintered the bees outside and others, who wished to control temperature, humidity, etc., wintered colonies in buildings. Some buildings, the most efficient ones, have been constructed or modified for the purpose. All of these beekeepers had one thing in common. They wintered their bees and each spring purchased enough "package bees" or "bees by the pound," from the southern United States to replace winter losses.

Other beekeepers have routinely taken the crop of honey and then killed the bees in the fall. They have relied upon the package bee industry to replace all of their colonies each spring. This practice was not as common in eastern Canada as it was in the West. In the East, the main honey flow begins nearly a month earlier than in western Canada. Consequently honey production with package bees in eastern Canada has been poor. Even in the West, wintered colonies have consistently outproduced package colonies.

In 1956 bees of the subspecies *Apis mellifera adansonii* were taken from Africa to South America to be used in cross-breeding work in an attempt to improve honey production. A beekeeper, who had no business tampering with the colonies, allowed swarms to escape. The subsequent story is fairly well known and certain people have tried to make profit of this by producing scare movies such as "The Swarm." The so-called "killer bees"

stories have been blown out of proportion. There is no disputing the fact that the "African" or "Brazilian" or "Africanized" bees have some undesirable traits, and that they have caused fatalities to wild and domesticated animals and also to humans. They are so difficult to manage in hives that many beekeepers where these bees now occur have gone out of business.

In the early 1970s it became apparent that these bees were enlarging their range in South America at an alarming rate and would sooner or later reach North America. At this time, some of us who studied the situation could foresee a drastic impact on the Canadian beekeeping industry at some point in the future. It was known that the Africanized bees are genetically dominant in many characteristics over bees of Italian strain. It was also known that the Africanized bees had a trait, almost unknown in Italian bees, in that under adverse conditions they abscond; the entire colony leaves the hive and searches for a better place to live. Also, it was known that the Africanized bees, being of tropical origin, did not form clusters and generate heat like the Italians.

The last fact makes it clear that these bees could not survive winter in any part of Canada or even in the northern half of the United States. If you think that solves any problem we might have, think again. The Africanized bees can survive very well in the southern United States, in those states where the package bee and queen rearing industry is based. When they reach these states, and it is only a matter of time as they moved north into Mexico in November 1984, they will occupy and take over colonies there as they have done everywhere during their trek northward through South and Central America.

If we are forced to use Africanized package bees in Canadian apiaries, many beekeepers would quit as has happened in other countries through which these bees have passed. The bees are difficult to manage and we could not winter them. We could no doubt buy what honey we need from

other countries, which would be too bad, really, as Canada now has the highest production of honey per colony in the world. What would be far worse is the lack of bees for pollination of crops. In Canada the total annual value of pollination exceeds \$1.5 billion. Lack of pollination would mean many more dollars spent on importing foods which we could no longer produce efficiently.

A number of people, myself included, stated more than 10 years ago that the only way beekeeping in Canada could survive would be to become self-sufficient in bees; that is, winter all of our colonies and replace any losses with nucleus colonies and queens produced by specialist beekeepers in Canada. At Macdonald College, we produced nucleus colonies 11 years ago just to prove to others that it could be done. We have also developed methods of outside wintering, which we have demonstrated for years, with losses far below the provincial average. These facts, combined with carrying the message of self-sufficiency, have shown results. We do not intend to indicate that we deserve more than a small share of the credit as others were following the same path. We now have several enterprises in Quebec producing excellent nucleus colonies and nucleus colonies are far ahead of package bee colonies in any case. We are unable to produce queen bees locally early in the season, but after mid-May we are nearly self-sufficient in queens.

Though some of us foresaw the need for self-sufficiency some time ago, none of us could foresee that this would become essential at such an early date. Events, other than the northward movement of the Africanized bees, have made necessary a very great change in the beekeeping pattern.

In 1983 it was discovered that a mite, parasitic on honey bees, was present and widespread in Mexico. This mite, *Acarapsis woodi* Rennie has been called "Isle of Wight Disease" as it was first found on this English coastal island. It is more accurately known as "Tracheal Mite" as it enters the spiracles or breathing pores and

multiplies in the air tubes (tracheal trunks) of the adult bees. Affected bees do not function well and their life span is shortened. The mites can be passed from bee to bee as they rub together in the hive. The effect of the mite is not usually noticed until infestations become very heavy. The problem does not usually cause death of an entire colony and detection is difficult. This mite has never occurred before in North America and beekeepers do not need additional problems. The United States has had an embargo on bees from Europe since the 1920s to prevent entry of this mite. There is no doubt that honey production is decreased and the level of pollination activity is also affected in infested colonies.

Near the end of 1983, the Tracheal Mite was found in an apiary in Texas. This stirred authorities in the United States to great activity and during 1984 a survey was made to determine if any colonies were infested in other states. Infested colonies were found in Florida, the Dakotas, New York, and others.

An embargo was placed against importing bees into Canada in 1985 from several states, including Florida. The state of Georgia refused to allow bees from Florida to pass through its territory. In the spring of 1985 plans were made to bring package bees from Georgia to Nova Scotia but before any shipment was made, the mite was found in Georgia, too, so the embargo was extended to that state. This was eradicated very quickly and the shipment was sent. Package bees have been brought into Quebec this year but, other than a small shipment from California (where the mite has not been found), all of them have come by air from New Zealand. Queens are also being brought in from New Zealand. A total embargo on bees from the United States would leave New Zealand as the only country from which bees could be imported into Canada. The Tracheal Mite is a pest that we could probably learn to live with, but that is not the end of the story. Another problem, *Varroa jacobsoni* (Oudemans), another mite, this one of Asiatic origin, is now known to be infesting the Africanized bees. This mite has not occurred in North America and has the potential to be a much worse problem than the Tracheal Mite. Adult bees are not

affected but serve as transportation to take the mites from place to place. The honey bee larvae are attacked in open cells and the worker bees cap these cells with wax as usual with up to seven or eight mites inside. The larva is not usually killed but pupates and the adult bee emerges after the proper time interval. However, bees which emerge from mite-infested cells are nearly always deformed, lacking some legs or the wings. They can never function as useful members of the colony. The Africanized bees will abscond, leaving deformed bees and many mites behind, but some mites are always carried to the new site in the hair-coats of the bees. Italian bees, which do not abscond, would remain with the hive. The colony could be greatly weakened and would probably perish in winter due to insufficient population to form a proper winter cluster. Absconding swarms of Africanized bees are usually vivacious. If we had such swarms of bees absconding in the fall to attempt to avoid cold weather, they could go anywhere, with

who knows what result.

The picture is now quite clear. The Canadian beekeeping industry must become self-sufficient very rapidly. It is encouraging to see the progress in this direction in Quebec. In western Canada, particularly in Alberta and Saskatchewan, wintering bees in buildings and outside is now practised by the majority of beekeepers. Manitoba has lagged behind somewhat in wintering bees but should catch up soon. In British Columbia most colonies are wintered. A new program of queen-rearing has begun in that province and it is possible that most of the queen bees required in the rest of Canada, early in the season, that is during April and May, may be produced in British Columbia.

A total embargo on package bees may not be so bad after all. Instead of an annual out flow of hundreds of thousands of dollars for package bees (average \$30-\$40 each), the money will remain in the country and will therefore help to boost our own beekeeping industry.

High School — CEGEPS Information Day



Some of the Advisers who heard staff and graduates discuss the various academic programs at Macdonald College.

Last March about 50 Academic Advisers from French and English CEGEPS and high schools were welcomed at Macdonald College by the Recruitment Committee for a tour of the facilities, an informal luncheon, and an information session on four programs of study related to food and agriculture.

They listened with great interest to former students, now successfully employed, who spoke of their personal experiences in these programs and of their value on the job market. Jean-Michel Valiquette, liaison officer,

presented the Diploma Program in Agriculture; Sylvie Gauthier and David Bissionette talked about their careers in Dietetics; Louis Lahaie and Gaétan Duplessis answered questions on Soil Science and, finally, Carol Stobo and André Lambert share their experience as graduates in Microbiology. Both are now engaged in extremely promising careers.

More information days of this kind are planned so that program advisers may learn first hand about the employment potential of Macdonald graduates.

DIPLOMA

by Jim Currie

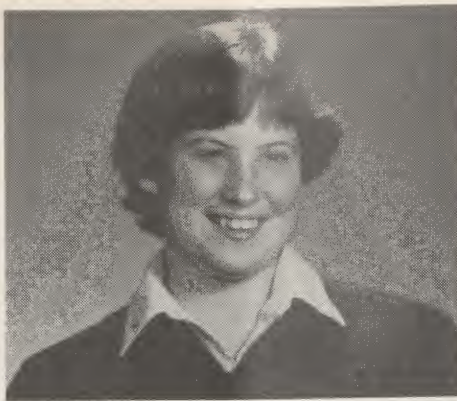
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Just one year ago I wrote an article about women who had graduated from the Diploma Program — my attempt to commemorate the one hundredth anniversary of women at McGill. The two young ladies mentioned in that issue continue to succeed. Martha Bowman, now a mother, and, as predicted, is back at work with the DHAS service in the Maritimes. Martha Robinson crossed the podium again this spring as a Bachelor of Science graduate, yet she still regards herself as a Dip first. An obvious recognition of priorities in loyalty.

At the end of that article I made a promise to another girl who had submitted to an interview. At that time, there just wasn't space enough to do justice to her accomplishments. Never one to let a promise go unfulfilled, I will use her story as the last in my "Corner" articles for this journal.

Donna Bider (Dip. '80) is somewhat of a home-grown entity. She is the daughter of Dr. Roger Bider, professor and former chairman of the Renewable Resources Department at Macdonald. Donna's first experience in farming was on a boarding farm. She loved it. Her grandfather took into account this love of agriculture and the fact that she was up at the crack of dawn (which he felt was a natural requirement of farmers) and encouraged her to pursue this dream. With the help and encouragement of her parents, she approached the Diploma Program for entry in 1978. To gain the needed experience for the course, she worked weekends and part-time for the Macdonald College farm. According to Donna, this is where she learned cattle care and milking "from teat cup on up," from Gordon Beaulieu, herdsman at Mac.

Donna had no illusions about the Diploma Program and agriculture in general. She was entering a male chauvinist domain. She had at least two strikes against her at the start. "She" is a *city girl*. That wasn't enough to even slow her down. Donna wanted to farm, and that was that. However,



she had no illusions of grandeur. She merely hoped that she could get a job as a farm worker after graduation. Donna's wildest dreams for her career only included possibly managing a farm or having her own hobby farm.

Donna had full confidence in her ability to learn. She knew she could do the course work but she needed experience and for her the program was ideal. Since she lived near the campus and with the research farm right there, Donna continued to work part-time and weekends while studying. For the Summer Farm Practice portion of the program, Donna chose two Quebec dairy farms. For the first summer she worked at the farm of Chuck and Lorraine Fowler, in Melbourne, near Richmond, Quebec. This was an ideal place to learn the intricacies of developing a small, yet top quality, dairy herd. Lorraine introduced her to the milking techniques, record keeping, feeding and breeding programs that have made this one of the best Ayrshire herds in Quebec. She had her first lessons in field work from Chuck. He helped her learn the fine points of picking rocks, throwing bales, driving tractors, and fencing. All lessons that would serve her well on the next farm, and in the future. Her second summer was spent on the farm of William Dings of Lachute. There was complete confidence in her abilities, and quite often she was left alone to handle chores or do the field work. The day that I visited her she was swathing hay and expected to be alone for chores.

These were really only introductions to the world of agriculture. And for Donna it has become a world-wide industry. After she graduated she took advantage of a student exchange program to travel to New Zealand for eight months, four months each on two different farms. She tested her management potential at these farms.

Her first farm was dairy again. But what a difference! The initial shock was the size, 205 head milking and 100 steers; bigger than anything she had worked on previously. Surprise number two was the lack of buildings. All she found was a covered milking parlour on the edge of the pasture. This was also her first hint of why New Zealanders keep dogs. These little work-mates would guide the cattle into and away from the parlour better than any arrangement of gates. More buildings than that weren't necessary since the cattle were on pasture for 12 months of the year. There was only a small amount of feed stored to get the cattle through periods of drought. The biggest (or maybe, the smallest) surprise was the average production level of the herd. It was at a level that would have embarrassed the Dings and Fowlers, or driven them both into bankruptcy. Again, though, the farmer quickly developed full confidence in Donna. Justifiably so, as events turned out.

At one point, the owner took a week of holidays and was stranded for three weeks by an airline strike. During that time Donna showed her worth by coping with one disaster after another. In that three weeks she nursed the farm through both drought and flood. She trained a new assistant and lost a dog in a fight. During the floods she camped by the river to protect or save the cattle, and when things really got tough she hopped in the truck and headed for the neighbours for help. She never made it. On the road she hit a mud slide and rolled the truck. In her view the owner got back none too soon.

On the next farm she had her first experience with sneep; 2,300 of them! Luckily, she had a very good teacher as a boss. Although the first day was a little rough. Her greeting at the farm went like this, "OK! There's the motorcycle. Today we chase sheep!" And so she started a four-month shift on a sheep station. That was enough time to learn that she was more interested in cattle.

Every "holiday" comes to an end sometime, and with her eight months in New Zealand finished, Donna returned to Canada for the summer of 1981. World travel, however, did not end. Donna soon landed a job on Vancouver Island. This time she was hired as the herdsman for a purebred Hol-

stein farm. Her responsibilities included 100 milk cows and a 50-head calf barn. She found it quite easy to run since it was a fully automated free-stall operation with a computerized milking system.

The following spring, world travel called again, and Donna packed her bags to head off on another exchange program. This time she visited her family's ancestral homeland — Switzerland. Again, she had to adapt to an

unfamiliar form of farming and culture.

Her first farm was in the Germanic region of Switzerland. Understandably, this 20-cow dairy farm situated on a mountainside had its ups and downs. Each morning she would take the Brown Swiss cattle up to the pasture and then hitch up the horse to take the five cans of milk down to the cheese factory. It was the first time she had been involved in so much hand labour. Everything from seeding to haying was

done by hand. She explains that the farm itself was up to date but with the hills it was impossible to automate much of the work. During her time in Switzerland Donna also had the opportunity to try her hand at raising beef cattle and to try a little bit of forestry work; it all adds up to experience.

In the spring of 1983 Donna finally made it back to home territory. In fact, to the farm of Henry Dings, in St. Philippe d'Argenteuil. Mr. Dings recognized her ability to handle any problems that could happen on a farm and gladly hired her to do general farm work. Everything went well until a minor accident on the farm forced Donna to spend some time convalescing. During this period the chance came up to run a special project in the area. Donna was hired to direct a federal government work relief project operating out of St. Scholastic. The project called "La Ferme — Une Decouverte" was funded for 20 weeks. During this time Donna was the group leader for 18 people who gave farm tours in the area. Her newly acquired position as Secretary of the local English-language syndicate of the U.P.A. helped her a lot in making contacts for the farm tours.

Donna obviously is not the type of person who lets grass grow up around her. By the time the government contract was terminated, she had arranged for another job. D.H.A.S. at Macdonald College hired her to do official tests on herds in the Lachute area. So now, Donna is back with the people and the dairy side of the business that she still loves so much. She travelled the world but has turned Lachute, Quebec, into home. And on July 6, she married a local farmer, Brian Clark, thus, inadvertently fulfilling another dream. But this farm will be more than just a hobby as Brian is in partnership with his brother Wayne in a dairy-maple syrup enterprise.

This also completes a page in my own career. This is the last Diploma Corner article that I will write for the Macdonald Journal. Thanks to Donna and to all the others who subjected themselves to one of my interviews. It's been fun for me, at least. Continued success to Hazel Clarke with the Journal. And to all "Dips" everywhere, keep up the good work.

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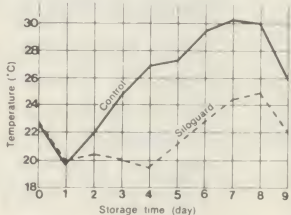
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FUN FACT FABLE FICTION

by Ralph H. Estey
Emeritus Professor
Department of Plant
Science

Is the Mayor Right Again?

Mayor Drapeau may be right in refusing to permit the addition of fluorides to Montreal's drinking water.

New evidence (New Scientist, Feb. 28, 1985, page 20) now supports earlier suspicions that fluoride can have a deleterious effect on the health of elderly people. It has long been known that fluorides interfere with the function of natural enzymes. It was only the long-term result of this reference that has been controversial.

All of the answers are not in yet. In the meantime, parents in Montreal may add fluoride to their children's drinking water while avoiding this additional risk to their own health and that of their children's grandparents.

It is now difficult for an adult to purchase a tube of toothpaste that does not have fluorides in it, but, thanks to Mayor Drapeau, people who live in Montreal have no problem in finding drinking water that is free of those unnecessary additives.

It's About Time

Did you see the sign in the Beaconsfield shopping centre that read, "Ladies Ready to Wear Clothes" and under it someone had added, "It's about time"?

Salt as an Herbicide

References to the fact that common salt (sodium chloride) kills plants appear in some of the earliest records of war and agriculture. In Biblical times the final punishment, after slaughtering the people in a town or village, was to put salt on the soil so crops could not be grown there (Judges 9:45). The apostle Luke referred to salt neither fit for the land nor the manure pile (St. Luke 14:34-35). When the Romans defeated the Carthaginians they put salt on the soil so the survivors would be forced to leave that region because they couldn't grow their food grains.

Horticulturists in the seventeenth century applied salt to their garden paths to keep them free of weeds. In 1678 John Evelyn produced a pamphlet of 52 pages in which he wrote that heavy applications of salt would kill plants whereas small quantities acted as a fertilizer and resuscitated what he referred to as exhausted soils.

In the eighteenth century Scottish agriculturists used salt as a selective herbicide. They applied about 10 bushels of salt per acre of wheat in winter and this killed the weeds but not the wheat. Smaller quantities of salt acted as a fertilizer and produced a richer growth of grass.

In the first half of the nineteenth century several pamphlets were produced in Britain on the uses of salt in

agriculture. One by Samuel Parks, in 1819, made specific reference to the herbicidal value of salt as a means of controlling weeds. It's biodegradable, too.

Palindromes

Palindromes are words, lines, or verses that have the same spelling whether backward or forward. For example, when Adam introduced himself to Eve in the Garden of Eden, he could have used this palindrome: "Madam, I'm Adam" or he could have extended it to "Madam, in Eden, I'm Adam."

Other examples of palindromes:

Poor Dan is in a droop
Draw pupils' lip upward.
No evil deed live on.
Was it a bar
or a bat I saw?
Ten animals I slam
in a net.

No, it is opposition.

Wine or Grape Juice?

Even though Christ made wine (St. John 2:7-11) and drank so much that he suspected others of calling him a winebibber (St. Luke 7:34), many of his twentieth century followers will not touch it. Catering to this latter group, Dr. Welsh perfected a method of keeping grape juice from fermenting so as to provide abstemious Christians with a non-alcoholic "wine" for religious ceremonies in which wine had been used for hundreds of years. A well known brand of grape juice on the market today is a continuing reminder of this anomaly.

Wisely Uncritical

I never criticize my wife's occasional lack of good judgment because it may have been this little imperfection that prevented her from getting a better husband.

Rain or Shine?

Despite several decades of research and having access to a world-wide network of radar stations, modern weather forecasters are still no better than my grandfather was 50 years ago. Each morning he would go to the back door of our house, raise a moistened finger to test for wind direction and humidity, scan the sky for cloud formations and then announce what the weather would be for that day. Because he was an active farmer, his prediction of rain or sunshine was an important first step in planning the day's work.

Fact or Fiction?

If "brain power," or the lack of it, is hereditary, human society may be evolving backward, because those people with the lowest IQ ratings are having twice as many children as those with the highest. We don't know for certain that this is true because serious research in the inheritance of human ability has long been hampered by the feeling that our ethics may somehow be undermined and that a knowledge of substantial inherited differences could lead to unjust treatment of the less-well-endowed.

GARDENS FOR GAMBIA

y Terence McRae

he CUSO Local Committee at Macdonald College had an extremely active and successful year on the campus. High on our list of priorities for the year was the wish to "reach out" and make a concrete contribution to development. This was accomplished through effective fund-raising support of one of CUSO's many small- to medium-size development projects in the Third World.

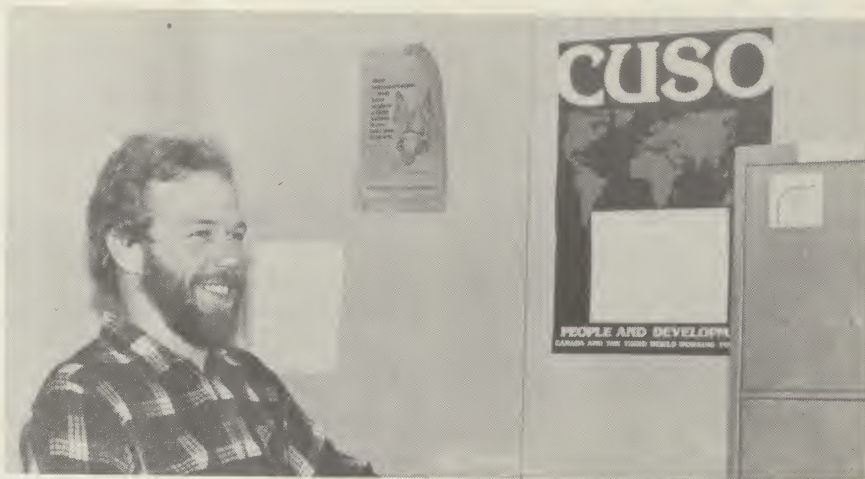
Located in Gambia, a tiny West African country bordered on three sides by Senegal and on the west by the Atlantic, the project selected seeks to establish communal vegetable gardens in three rural Gambian villages. Requested by the Gambian Women's Bureau, the project will be carried out in four stages:

1. Initial clearing of land and establishing of plots;
2. Wells construction and fencing;
3. Wells finishing and preparation of the beds for planting;
4. Transplanting with the provision of implements as required.

The gardens are tied in with the objectives of providing an alternative source of food supply to drought-ridden villages whose only existing source of food supply to drought-ridden villages have been a failure as a result of the unfavourable weather conditions. In addition the garden project is expected to yield extra vegetables which could be marketed to other parts of the country, thus providing additional income for these women's groups.

The year-long fund-raising drive was launched on October 16, World Food Day, the themes for which this year were "Hunger in Africa" and "Women Development." Our fund-raising efforts at Macdonald have so far collected approximately \$1072 which, when matched by CIDA's three-to-one program, translates into a total of \$4288, 34 per cent of the project's \$12,500 cost.

The bulk of the amount collected, 71 per cent, came from the proceeds of a unique fund-raising event at Macdonald, an International Evening held last November. This event was a true success story and is an example of what can be accomplished when the dynamism and energy of several



Terence McRae guided the CUSO group at Macdonald through a very successful year.

groups is brought together. The three sponsors of the event were the International Students Association, the Students' Council, and CUSO Macdonald. Approximately 350 people attended and were treated to a dazzling display of national costumes from some two dozen countries, national dances performed by students from some dozen countries, and music by the excellent reggae band "Ebony Affair." It was agreed that the proceeds would go to the CUSO project with the result that an evening of international entertainment was put to good progressive use.

The CUSO Local Committee has been active in other ways as well. Some examples are a lunch time film series on national and international issues, participation in World Food Day and the Macdonald Royal, and the week of March 11-15 was designated Latin American Week which brought

several films, speakers, exhibits, and entertainment from various areas of Latin America to Macdonald. Again, this was co-sponsored by the International Students Association with whom a close working relationship has developed.

In addition to promoting development education, CUSO provides skilled Canadians with the opportunity to participate in the development of many developing nations and our office at Macdonald is a valuable source of information to Macdonald graduates interested in working abroad.

Above all, Macdonald's CUSO committee provides the framework within which the students with an interest in international development, as well as development education here in Canada, can get involved on a local, national, and perhaps eventually, international level.

IMPORTANT AGREEMENT ON HORTICULTURAL RESEARCH AND TRAINING SIGNED BETWEEN MCGILL UNIVERSITY AND THREE OTHER ORGANIZATIONS

On June 20, Vice-Principal Roger B. Buckland on behalf of McGill University signed an important agreement with the Ministry of Agriculture, Fisheries, and Food, Laval University, and the City of Montreal in which the four participants agreed to share responsibilities in horticultural research and training. Each organization or institution has specified its particular area of interest. McGill University, through the Department of Plant Science, will

place its accent on the management, protection, and conservation of field grown vegetables, the management and protection of tree fruits, and the management of in-vitro growing of ornamental trees and shrubs and in nursery crop production.

The long-term prospect for success in such an agreement rests upon the optimum use of the available resources in the fields of research and training.

Seeking Solutions

Several Macdonald researchers have been successful in obtaining equipment grants through the Natural Sciences and Engineering Research Council's (NSERC) 1985-86 Equipment Grants Program. The objectives of this program are to foster and enhance the research capability of university researchers and to provide a stimulating environment for research training by supporting the purchase of research equipment.

In Canada animal research in the area of mineral nutrition has been very limited in comparison to other areas of nutrition. **Professor Eduardo Chavez**, of the Department of Animal Science, has obtained funds toward the purchase of a Beckman Model 5500 Gamma Counting System which will assist him in his on-going NSERC-funded research project on trace minerals nutrition of the prenatal and neonatal piglet. The Gamma Counter represents one of the key pieces of laboratory equipment for kinetic studies in mineral nutrition as well as providing an additional analytical capability for developing new research directions in other programs at Macdonald College.

Liquid scintillation counters are in great demand on campus. Currently, there are counters in place in the Departments of Animal Science, Microbiology, and the Department of Food Science and Agricultural Chemistry. The latter, however, has been in continuous operation since early 1966 and, thus, funds for its replacement were requested, and received, by **Professor Bill Marshall** of the Department of Food Science and Agricultural Chemistry. Purchase of the liquid scintillation counter will permit Professor Marshall to complement on-line and proposed studies into the fate of alkyllead salts in selected plant species and in soils, also an NSERC-funded project. Other users of the liquid scintillation counter will include **Professor Alan Watson** of the Department of Plant Science and **Professor Constantinos Zarkadas** of the Department of Food Science and

Agricultural Chemistry. Their applications concern: i) the effects of stress physiology (caused by insects, pathogens, and nematodes) on accumulation patterns and translocation pathways of radiolabelled photosynthate precursors, and ii) the incorporation of doubly labelled precursors into muscle proteins, respectively.

Professor Bob MacLeod of the Department of Microbiology is the successful recipient of an NSERC Major Equipment grant towards the purchase of a Preparative Ultracentrifuge. The centrifuge will be purchased to replace an obsolete model purchased in the mid-1960s and to meet requirements of on-going research programs which the Department's other centrifuge cannot handle. In addition to being an invaluable research tool for Professor MacLeod's NSERC-funded research on the comparative biochemistry of marine and terrestrial bacteria, the centrifuge will be essential for the NSERC-funded research of other Department members. Specifically, these include **Dr. Duane Martindale's**

research on the analysis of genes containing a conserved sequence present in a meiosis-specific protozoan gene and **Professor Donald Niven's** research on biochemical and physiological studies of porcine haemophilia.

Professor Vijaya Raghavan, whose main area of research is in post-harvest technology, has been awarded an NSERC Equipment Grant for a Gas Chromatograph (GC). The GC will be used by Department of Agricultural Engineering graduate students and research associates in their respective thesis and research work in the areas of: conservation of grains/cereals, storage of fresh produce, and soil-machine interaction. In addition, the equipment will be used in food engineering related research by

Professor Robert Kok of the Department of Agricultural Engineering and by **Professor A.F. MacKenzie** of the Department of Renewable Resources to assess nitrogen conversions in soil receiving various forms of nitrogen fertilizer. This equipment will be very valuable to many researchers.

newsmakers on campus

HELENE CHIASSEON and **JUDY SCHORSCHER** received their Masters degrees in June. The Entomology Department says good bye and good luck to these students who are continuing their studies in Africa over the next two years: Judy in Mali and Helene in Guinea.

MARCEL J. COUTURE, Assistant Director of the Diploma in Agriculture Program and Director of Extension Services, was awarded the Canadian Farm Business Management Award for Excellence by the Canadian Agricultural Economics and Farm Management Society at the Agricultural Institute of Canada conference held in Charlottetown in June.

PROFESSOR A.R.C. JONES and his wife **HELEN**, representing the Morgan Arboretum Association, participated in a tree planting ceremony held at Government House, Rideau Hall,

Ottawa, to launch the Richard Ste. Barbe Baker Foundation. During periodic trips to Canada, the late Ste. Barbe Baker, who initiated "Men and the Trees" in the early twenties, visited Macdonald to promote world forest conservation, in particular the tree reclamation of the Sahara desert. The Governor General, Jeanne Sauvé, planted a red maple, aided by many young people representing Canada's cultural mosaic.

PROFESSOR PAUL C. LAGUE of the Department of Animal Science has been elected President of the Ordre des agronomes du Québec.

JUDITH LUSSIER, who received her BSc (F Sc) in June, received the Canadian Home Economics Association Award which is given in recognition of potential contributions to the profession.

DR. ROBERT MacLEOD, Microbiology, presented seminars at the University of Ottawa and at the downtown

campus of McGill on work carried out in his laboratory mainly by **DR. PAT MacLEOD**, who has succeeded in cloning for the first time a λ^+ -dependent transport system from a marine bacterium in *Escherichia coli*, an organism found normally present in the intestine of men and animals.

LEIDA SANDERSON-BAGCHUS, 35 Food Science graduate who received the Governor General's Medal at the June Convocation ceremonies, has another award. Congratulations! She has been awarded a special Master's scholarship by the Social Sciences and Humanities Research Council of Canada (SHRCC) for a degree in the area of consumer science and education. She also received the Canadian Home Economics Association Incentive Award at recent ceremony.

MERRY SCHWAN, Forestry-Soils graduate student, Renewable Resources, and new Chairman, Forest Technology, John Abbott College

off campus

AIC Honours

line Canadians have been honoured by the Agricultural Institute of Canada for their contributions to agriculture. Of the nine, two are Macdonald graduates, and they received their awards at the official opening ceremonies of the annual conference of the AIC which was held this year at the University of Prince Edward Island in Charlottetown, June 23rd.

EDGAR J. LeROUX, BSc (Agr) '52, PhD '54, DSc '73, was nominated for an AIC fellowship in recognition of his contributions to Canadian agriculture as a scientist, as a teacher, and as an administrator. Ed LeRoux has been a major figure in pest control, in particular applying the concept of population dynamics to pest control in orchards. As a teacher at Macdonald, Dr. LeRoux built a school of ecology to which he attracted a large number of graduate and undergraduate students. In 1965 he joined Agriculture Canada and, in 1978, was named assistant deputy minister, research. He is

CEGEP, whose paper "The Effect of Sewage Sludge Soil Application on Hybrid Poplar Growth" (co-authors A.F. MacKenzie and A.R.C. Jones) presented at the 1983 joint Soil Science Society of America/American Society of Agronomy annual meeting was chosen best paper for the forest and range soils division. The award is made for the best organization, quality of visual aids and presentation. Congratulations!

DR. ROBIN STEWART, Entomology, visited Benin University in Nigeria in July to discuss collaboration between the two Faculties of Agriculture.

PROFESSOR F.R. VAN DE VOORT and **EVA GRUNFELD** attended the 28th annual Canadian Institute of Food Science and Technology Conference in Toronto. Eva, a student in the Department of Food Science and Agricultural Chemistry presented a paper entitled "The Determination of Ammonia in Kjeldhal Digests by Infrared Spectroscopy" and won the Graduate Student Paper Competition.

responsible for the largest agricultural research program in Canada with a total staff of 3,500 and a scientific staff of 900.

CARL BERTRAM WILLIS, BSc (Agr) '59, was nominated for an AIC fellowship in recognition of his contribution to forage pathology research and to professional organizations. Dr. Willis has been with Agriculture Canada since 1962 when he joined the Charlottetown Research Station. Since 1975 he has been assistant station director. Carl Willis has undertaken many important research programs and has published extensively. He acted on and chaired numerous committees including the Atlantic Committee on Crops. He is a past president of the Canadian Phytopathological Society and has played an active role in the publication of scientific journals. For six years he was the associate editor of the Canadian Journal of Plant Science and for seven years was a member of the Editorial Policy Board of the Canadian Journal of Plant, Animal and Soil Science, the last four as Chairman.

ANNA CATHERINE TEMPLETON, BHS '38, received the honorary degree of Doctor of Laws at the 1985 spring convocation of Memorial University in Newfoundland. Anna Templeton, a native of St. John's, joined the staff of the Jubilee Guilds (now the Newfoundland and Labrador Women's Institutes) as a field worker. For 18 months she travelled the coasts of Newfoundland by boat, dog team, and train organizing new Jubilee Guilds and inspiring rural women to improve the quality of their lives through new skills and programs. She became organizing secretary of the Jubilee Guilds in 1939 and remained in that position until 1965 when she became supervisor of a new branch of the Department of Agriculture — the craft training division. She continued in that position until her retirement in 1981. Anna Templeton has been granted honorary life memberships in the Newfoundland and Labrador Women's Institutes, the Newfoundland Home Economics Association, the Canadian Craft Council and the Newfoundland and Labrador Association for Adult Education.

IVOR HUGH PROVERBS, BSc (Agr) '48, MSc (Agr) '50, retired recently from the position as Chief Animal Husbandry Officer, Minister of Agriculture, Malawi. Prior to his retirement he was named a MBE by Queen Elizabeth II. Hugh Proverbs was responsible for many programs which encouraged farmers with small holdings to diversify. He had particular success with a beef fattening program which utilized many crop residues and was based on small farms. The results of this program is that Malawi is almost the only country in Africa that is self-sufficient in beef. Hugh Proverbs now live in Barbados.

JAMES R. JOWSEY, PhD '53, received the Saskatchewan Institute of Agrologists' Distinguished Agrologist Award at the Institute's annual convention banquet on May 31. Dr. Jowsey's career included being a research assistant, working as a research officer in poultry nutrition for the federal department of agriculture, and he has been a high school teacher and a university lecturer. In 1984 he retired from the position of provincial problem wildlife specialist with Saskatchewan Agriculture. The Institute recognized

Dr. Jowsey's high academic and work standards, his work towards ensuring that agricultural practices are in harmony with events in the global, natural world and his unselfish sharing of ideas and knowledge.

DR. JOHN OGILVIE, BSc (Agr) '54, Director of the School of Engineering at the University of Guelph, has been appointed a director of the Ontario Centre for Farm Machinery and Food Processing Technology at Chatham.

ROLAND L. HAYMAN, BSc (Agr) '66, has been appointed Assistant Director of the Extension Services Branch with the Nova Scotia Department of Agriculture and Marketing in Truro. After graduating he joined the Department working as an Assistant Agricultural Representative in the Antigonish, Sydney, and Truro offices and in 1970 he was appointed Ag Rep for Colchester County. In 1974 he transferred to the Farm Management Division and was appointed Supervisor of the Division in 1975, the same year he received his MSc in Farm Management and Economics from the University of Guelph. He has served as the Acting Assistant Director since August of 1984.

DR. WAYNE COLE, BSc (Agr) '69, was recently appointed pathologist at the Ontario Ministry of Agriculture and Food veterinary laboratory services facility at Ridgetown.

MOHAMED FARIS, PhD '71, was in Egypt earlier this year as a member of an appraisal team for a CIDA-sponsored soil and water improvement project in the Nile Delta. Of the eight specialists concerned, Mohamed was the only representative from Agriculture Canada and the only one fluent in Arabic. After six weeks' study, they concluded that the five-year project was feasible. We learn from Agriculture Canada's publication *Tableau*, that Mohamed, a forage breeder at the Ottawa Research Station has previously spent six years in Brazil with the Ford Foundation, two years in the Sudan with the United Nations Development Program and various periods as an agronomic consultant for other international projects. He admits that he was apprehensive about returning to Egypt. "It is one thing to offer advice to foreigners and

quite another to try to give it to your own people," he said. However, the Egyptians welcome his assistance. The team toured the Nile Delta and made it a point to visit the farmers, several times sharing a meal with them. "Everywhere in Egypt," says Mohamed, "Canadians are admired and respected."

He noted that farmers have grown crops in the Nile Delta for more than 5000 years; they have plenty of sunshine, good soil and water. However, waterlogging, and soil salinity have cut production in the old lands since the construction of the new Aswam Dam. CIDA aims to improve the soil and then to introduce better technology to improve drainage and irrigation. Mohamed's role was to determine the best farming system and which crops to grow to achieve maximum production on the improved land. He believes food production could be increased by 25 to 50 per cent in the Nile Delta. The project will go on for five years and cost \$70 million. The target area measures close to 41,000 ha which support half a million people. The project in the Nile Delta is a model of help for developing countries.

JACQUES A. MILLETTE, BSc (Agr) '71, PhD '84, who is special adviser with the Program Coordination Directorate in Ottawa, received an award under the Commonwealth Foundation fellowship scheme to promote commonwealth understanding. The broad aim of the scheme is to promote a deeper understanding of Commonwealth affairs and to foster a greater commitment of Commonwealth ideals.

MIKE SCHOFIELD, BSc (Agr) '74, is assistant technical director, pulp and paper division, Betz Inc., Kanata, Ont.

RICK WALTER, BSc (Agr) '76, has been appointed Head, Natural Resources Management for the Department of National Defence in Ottawa. He has worked with the Department since 1977 in both Kingston and Ottawa.

JOE CALDER, BSc (Agr) '78, has been appointed as the Assistant Agricultural Representative with the Extension Services Branch of the Nova Scotia Department of Agriculture and Marketing for Cumberland County. Following graduation Mr. Calder worked

in agricultural sales positions in New Brunswick with Nutrite Inc. and with Pick-Seed up until joining the Department. He will work out of the Department's Nappan office.

ANDREA DE ROME, BSc (Agr) '82, who was in regional sales with the Upjohn Company, was recently promoted to Sales Training in Toronto.

GORDON OWEN, BSc (Agr Eng) '82, has just received his MSc from Macdonald. He is at present a lecturer in the Kemptville College of Agricultural Technology.

GUY DESMARAIS, BSc (Agr) '85, is now a Sales Agronomist with Pioneer-Himalaya Bred in Chatham, Ont.

GARY LAJOIE, BSc (Agr) '85, is now Product Manager, fresh meats division (beef) with Canada Packers in Moose Jaw, Sask.

ROBERT J. CURTIS, of Fredericton, N.B., was the recipient of this year's and Honorary Life Membership in the Canadian Jersey Cattle Club. Mr. Curtis has been with the New Brunswick Department of Agriculture for the past 17 years and is Administrator of the Dairy Herd Analysis Service (DHAS) milk recording program.

deceased

REBECCA F. (Franklin) KIRMAYER, Dip Ed '15 of Coaticook, Quebec, on April 26, 1985.

VAUGH S. LOGAN, BSA '30, MSc '39. No further information.

DORIS (BECKER) VENIS, BHS '35, at Montreal, Quebec, on May 13, 1985.

LLOYD GEORGE HERMAN, PhD '48, of Bethesda, Md., on February 1, 1984.

JOHN SWAINE, B Ed '57, of Beaconsfield, Quebec, on December 27, 1984.

IVAN B. ELLS, BSc (Agr) '60, at Bowmanville, Ont., on February 16, 1985.

EVA H. (SMITH) NESS, in Montreal, Quebec, in her 95th year, wife of the late Professor Alex R. Ness of Macdonald College.

LOOKING AHEAD TO REUNION 1990

At a reception for Graduating Class Officers held at Martlet House (Graduates' Society Headquarters), in March of this year, representatives from McGill's 12 faculties and 11 schools met with their respective Deans and Directors and Principal David Johnston.

Selected by colleagues to represent the Faculty of Agriculture, School of Food Science, and the Diploma Program respectively were Anne-Marie Melynck, Caroline Brost and Peter MacKinnon.

Principal Johnston gave thanks to the officers for their commitment to the university and emphasized the importance of their role in McGill's future as a vital communication link between graduates of each class and the university.

In an annual newsletter, representatives keep classmates up-to-date on news and in touch with one another. In this way they help to maintain the "class identity" and the bonds developed during university days.

Every fifth year the representatives assume the role of chairman responsible for encouraging graduates to return to their alma mater and keep abreast of the changes and developments in the faculty.

We wish the graduating class officers "good luck" and hope to see them in 1990, if not before.



Representing Macdonald College at the Graduating Class Officers' Reception were, l to r, Dr. Jean David, Anne-Marie Melynck (Agriculture), Caroline Brost (Food Science), Dr. Shirley Weber, and Peter MacKinnon (Diploma).

PLANNING FOR REUNION 1985

The Reunion '85 Committee is delighted to see that there is a representative for almost all the honour classes and expects a good response for the September 28 Homecoming. All other graduates are welcome to join us for the Reunion.

Details of the day's program will be listed in the Reunion brochure and sent

to honor years (ending in 5s and 0s) and Montreal area graduates early in August. For information relating to Reunion, contact Susan Reid at (514) 392-4815.

Brochures are available on request for non-honour year grads at 3605 Mountain Street, Montreal, Quebec H3G 2M1.

Calling All Woodsmen

This being the 25th Anniversary of the Macdonald Woodsmen, an invitation goes out to all woodsmen and woodswomen to join in a special celebration on Saturday, September 26. This special feature of Macdonald Reunion Weekend will include an alumni tournament on Saturday morning and a woodsmen's get together in the evening. See you there!

COME BACK AND MEET YOUR CLASSMATES

REUNION '85

All welcome, especially graduates of years ending in 5 or 0

**Macdonald Reunion will be held on September 28 at Macdonald College
in Ste. Anne de Bellevue**



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